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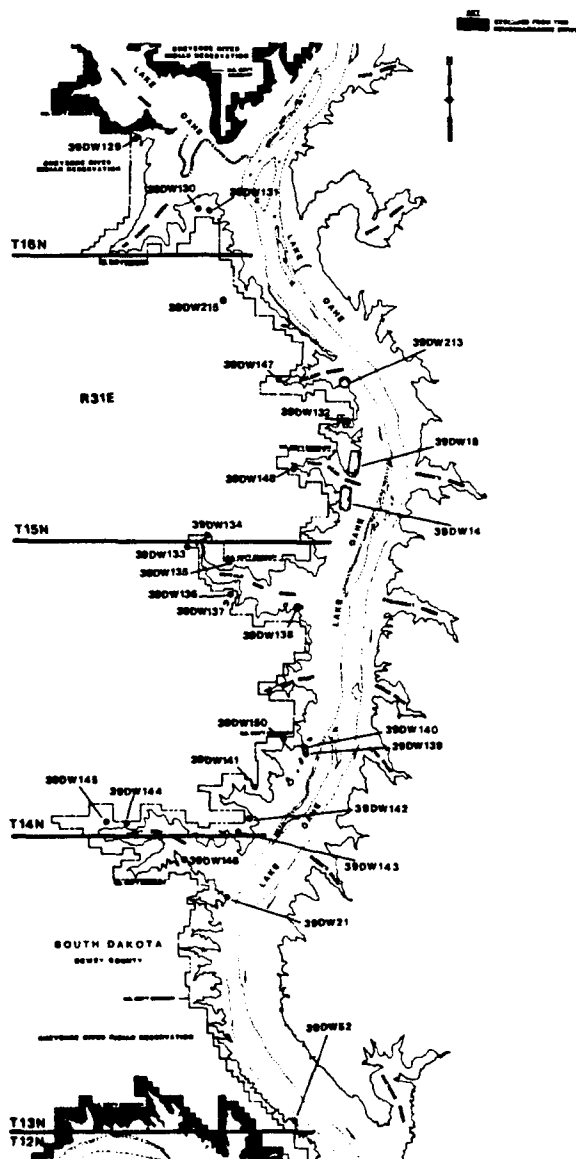


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Cultural Resources Reconnaissance In Dewey County, South Dakota From Below The Moreau River To The Forest City Recreation Area

Volume 1: Main Report

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Archeology Laboratory, Augustana College
Sioux Falls, South Dakota

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<p>An intensive cultural resources reconnaissance (Class II Inventory) survey was conducted by the Archeology Laboratory, Augustana College, along the west bank of Lake Oahe in Dewey County, South Dakota, within the Grand/Moreau Archeological Region, from below the mouth of the Moreau River to the Forest City Recreation Area.</p> <p>Twenty-eight prehistoric sites were recorded during the survey, four of which are outside the project boundaries. The sites consist of four earthlodge villages, six artifact scatters, seven cairns, three cairns with artifact</p>		

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scatters, a cairn and depression locality, a cairn with evidence of gravel prospecting pits, a depression, a stone circle and cairn locality, and four isolated projectile point finds. Twenty-nine isolated finds, ranging from single flakes to recent Euro-American materials, were also recorded.

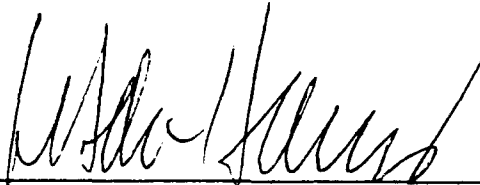
The village sites, all of which are being adversely impacted, represent the most significant resources observed during the survey. These sites are potentially eligible for nomination to the National Register of Historic Places.

CULTURAL RESOURCE RECONNAISSANCE
IN DEWEY COUNTY, SOUTH DAKOTA
FROM BELOW THE MOREAU RIVER TO THE FOREST CITY RECREATION AREA

VOLUME 1
MAIN REPORT

by
EDWARD J. LUECK,
KERRY LIPPINCOTT
and
R. PETER WINHAM

With contributions by Robert Brakenridge, L. Adrien Hannus,
Steven D. Ruple and Joseph Tiffany



Principal Investigator

SEPTEMBER 1989

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ARCHEOLOGY LABORATORY, AUGUSTANA COLLEGE
2032 SOUTH GRANGE AVENUE
SIOUX FALLS, SOUTH DAKOTA 57105

ARCHEOLOGICAL CONTRACT SERIES NUMBER 46

ABSTRACT

An intensive cultural resource reconnaissance (Class II Inventory) survey was conducted by the Archeology Laboratory, Augustana College, along the west bank of Lake Oahe in Dewey County, South Dakota, within the Grand/Moreau Archeological Region, from below the mouth of the Moreau River to the Forest City Recreation Area.

Twenty-eight prehistoric sites were recorded during the survey, four of which are outside the project boundaries. The sites consist of four earthlodge villages, six artifact scatters, seven cairns, three cairns with artifact scatters, a cairn and depression locality, a cairn with evidence of gravel prospecting pits, a depression, a stone circle and cairn locality, and four isolated projectile point finds. Twenty-nine isolated finds, ranging from single flakes to recent Euro-American materials, were also recorded.

The village sites, all of which are being adversely impacted, represent the most significant resources observed during the survey. These sites are potentially eligible for nomination to the National Register of Historic Places.

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Numerous other individuals assisted in various ways and helped the project crew survive the sometimes less than ideal survey conditions. Special thanks go to Lee and Alta Gorman, owners of the Sage Motel in Gettysburg, who made our stay a pleasant one; to Rick Moore, Oahe Project Manager, and Erik Stasch, Oahe Project Engineer; and to Richard Berg, Archeologist, Omaha District Corps of Engineers. Pat Hofer of the South Dakota Archeological Research Center promptly responded to our numerous requests for site numbers and other information.

Field personnel employed during the project included Kerry Lippincott, Edward J. Lueck, William Ranney, and Peter Froelich. Peter Winham accompanied geomorphologist Robert Brakenridge in his study of the area. Other specialists who provided information included Steven D. Ruple and Joseph Tiffany. Artifact illustration were expertly rendered by Rebecca Johnson. All administrative undertakings and additional backup support were provided by Lynette Rossum.

Type and Purpose of Investigation

This report presents the results of a Class II inventory/cultural resource reconnaissance survey accomplished along the west bank of Lake Oahe in Dewey County, South Dakota, from below the mouth of the Moreau River to the Forest City Recreation Area (shown on Figure 2). The total area surveyed was estimated to be 8,300 acres (12.97 square miles) (see scope-of-work, Appendix G), although a figure closer to 7,689 acres is derived from measurements off topographic maps alone.

The purpose of the reconnaissance, requested by the Omaha District, U.S. Army Corps of Engineers, was to meet the District's obligations to Federal preservation legislation and associated implementing regulations by providing both a documentation and evaluation of the cultural resources located within the area bounded by the shoreline and the takeline along the reservoir (see Appendices G and H).

Study Area

The study area is located within the Grand/Moreau Archeological Region of South Dakota (CSDA 1986). The survey area (Figure 1) is situated along the now-inundated Missouri River floodplain, bordering the Missouri River Trench and Pierre Hills physical division of South Dakota (Westin and Malo 1978:11).

Report Organization

The organization of this report essentially follows the outline provided in the scope-of-work. The report is comprised of two volumes. The first volume provides a narrative account of the project and a site-by-site inventory. Sites are summarized in numerical order by site type and their significance is addressed after the site description. Site maps and photographs accompany the inventory. Management recommendations are presented as a separate section.

The second volume contains the South Dakota state site forms, with specific locational information and various appendices listing the basic data and records derived from the project.

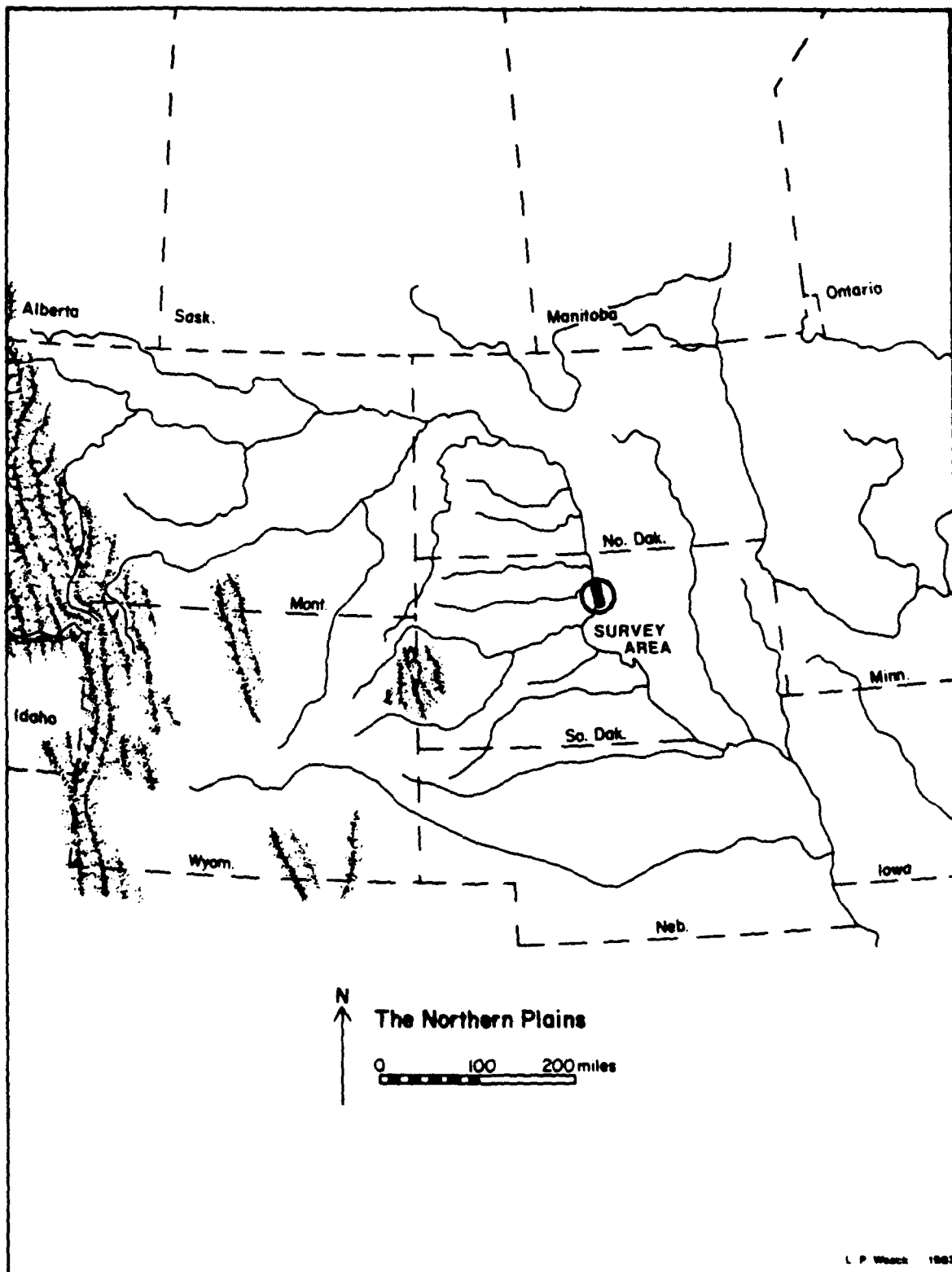


Figure 1. General location of the survey area within the Northern Plains.

Disposition of Artifacts and Original Records

Collected artifacts and the paper archive will be stored together at the South Dakota Archaeological Research Center in Rapid City, South Dakota.

Grand/Moreau Archeological Management Region

The Grand/Moreau Archeological Region encompasses the Missouri River valley trench and adjacent breaks in north-central South Dakota. Present day topography of the region is comprised of river terraces and breaks areas adjacent to the river. To the east and west of the breaks are plains covered by Pleistocene and Recent wind-blown loess deposits.

The earliest cultural materials confirmed within this region are Folsom complex pieces reported by Marion Travis (Travis and Haberman 1983). From the later Plano complex and Late Paleoindian period, and continuing through the Historic period, there is evidence for utilization of the region, although the evidence is minimal for certain periods, such as the Middle Archaic and Historic. Several specific research goals are outlined for the region at sites with particular temporal/cultural affiliations (see Buechler 1984:50-51).

General Environmental Framework

The survey area is defined by a narrow, irregular strip of land bordering Lake Oahe for a distance of some 22 miles from below the mouth of the Moreau River to the Forest City Recreation Area. The elevation of this area varies from the normal pool operating level of 1610 feet amsl to 1780 feet amsl. Much of the area is characterized by gentle to moderately steep slopes formed on Pierre Shale alongside the Missouri River floodplain. Several tributaries of the Missouri River are inundated in this area, including, from north to south, the Moreau River, No Mouth Creek, Fielder Creek, Four Bear Creek, Buffalo Creek, Buck Creek and Swift Bird Creek, along with many unnamed intermittent drainages. The photographs accompanying the site descriptions provide a series of views of the landscape in the project area.

The gentler slopes in the survey area occur alongside some of the tributaries, as well as on finger ridges and terrace remnants that today jut into the reservoir.

Physiography

The project area is situated on the edge of, but essentially above, the Missouri River Trench, in what is termed the Pierre Hills physical division of the Missouri Plateau in South Dakota (Westin and Malo 1978:11). The soil association for this area has been defined as Sansarc-Opal-Dupree (Westin and Bannister 1971 [map]), one of a series of "rolling and steep clayey soils and shale breaks." The area contains soils of the Warm Dry Plain (Typic Ustoll Area) which developed under a warm, dry, subhumid climate. Sansarc soils are clays on sloping to steep breaks in dissected shale plains. These soils are formed in clayey residuum weathered from shale. Opal soils are clays on nearly level to steep uplands. Dupree soils are similar to Sansarc soils.

Flora and Fauna

This region's "potential natural vegetation" is described by Kuchler (1964:1-2) as wheatgrass-needlegrass, a moderately dense, short or medium-tall grassland. The dominant grasses are western wheatgrass

(Agropyron smithii), blue grama (Bouteloua gracilis), needle-and-thread grass (Stipa comata), and green needlegrass (Stipa viridula).

It is estimated that 11,000 years ago the vegetation regions of North America were displaced well to the south of recent locations, and that around 12,000 B.P. the southern limit of the boreal forest was located in South Dakota. By the Sub-Boreal period (ca. 10,030 to 9300 years B.P.) the area was grasslands. The Atlantic period (ca. 8490 to 5060 years B.P.) saw drier and/or warmer conditions than today. By 4000 B.P. the major ecotones had stabilized near or at their present locations, although the regional climate continued to fluctuate. The Plains were apparently somewhat moister during the neo-Atlantic period (ca. 1260 to 850 B.P.) than later (Wendland 1978).

The fauna in the area would have included typical prairie species such as the white-tailed and mule deer, pronghorn antelope, bison, coyote, fox, skunk, raccoon, jackrabbit, and prairie dog. Among the common amphibians and reptiles were frogs, prairie rattlesnakes, bull snakes and garter snakes. Significant avifauna included both golden and bald eagles, hawks, sharp-tailed grouse, prairie chickens and migratory waterfowl.

Climate

The climate in the study area today is typical of the continental type; large variations in temperature occur from winter to summer and occasionally from day to day. Temperatures rise to above 100°F in summer and fall below -20°F in winter. Records at the Pierre station (Sphuler, Lytle and Moe 1971) show the average date for last frost in spring is May 5 and the average date for first frost in fall is October 6. The average annual precipitation is 16.50 inches, of which 12.53 inches fall from April through September; thunderstorms provide the main source of rain during this period. Snowfall averages 31 inches each season, with an annual variation from 13-82 inches. Winds average 10-11 mph with the prevailing direction being from the south during the summer months and from the northwest during the winter months.

Field Survey Conditions

The archeological field survey was conducted between July 10 and August 15, 1988. The weather conditions were generally good, with clear skies and calm to breezy conditions. Initially temperatures were not too extreme, but towards the end of the survey period there were a number of excruciatingly hot and humid days. Rainfall was minimal.

Human Geography

The survey area is located some distance from major centers of population and adjoins the Cheyenne River Indian Reservation. A few small communities, including Moreau, Swift Bird and Forest City, are located near the project area, while the larger town of Gettysburg is some 12 miles to the east. The area is sparsely populated and given over mainly to ranching, with very minimal cultivation. Lake Oahe is a popular recreation, boating and fishing locality; one developed recreation area, Forest City, is situated within the survey area.

3.

REGIONAL GEOMORPHOLOGY

by Robert Brakenridge

A reconnaissance level geomorphological evaluation of the survey area was undertaken between October 22 and 25, 1988. In addition to visiting a number of locations within the survey area itself, two sites critical to understanding the archeological geology of the Oahe study area, Travis II (39WW15) and Walth Bay (39WW203), were also examined. The primary purpose of the study was to identify which other reservoir shoreline reaches are likely to include similar buried sites in positions vulnerable to shoreline erosion.

At Walth Bay the site's "MT-2" ("Missouri River T-2" in the scheme developed by Coogan 1987) scarp position is important: such positions elsewhere in the reservoir are potential locations for buried sites. It should also be noted that the visible terrace sequence in the vicinity of Walth Bay is more complex than has so far been described. A clear, intermediate terrace occurs between the extensive "MT-3" surface above the site and the lower terrace with fresh banks now being carved by wave erosion (and pothunters). This landform is visible without difficulty in the field but cannot be mapped on the topographic quadrangles because of their too-coarse depiction of contour intervals.

Within the survey area the following sites/areas were studied (Figure 2): Locality 1 (site 39DW213); Locality 2 (site 39DW14); Locality 3 (S11, T15N, R31E); Locality 4 (S26, T14N, R31E); Locality 5 (S26, T14N, R31E); and Locality 6 (S35, T14N, R31E). In addition to the above localities, several areas were visited/observed along the entire survey route. Since the geomorphological study was undertaken after the archeological survey had been completed, it was possible to select areas where buried soils had been observed and where sites had been located.

Locality 1 (site 39DW213): This locality is part of an earthlodge village on a Missouri River terrace on the west side of the reservoir. The soils mapped here by the Soil Conservation Service are Lowry silt loams and Dupree-Sansarc clays. The Lowry soils are typic haplustolls with a "wind-deposited parent material," consistent with their presence on eolian silts capping fluvial terrace deposits. The Dupree-Sansarc

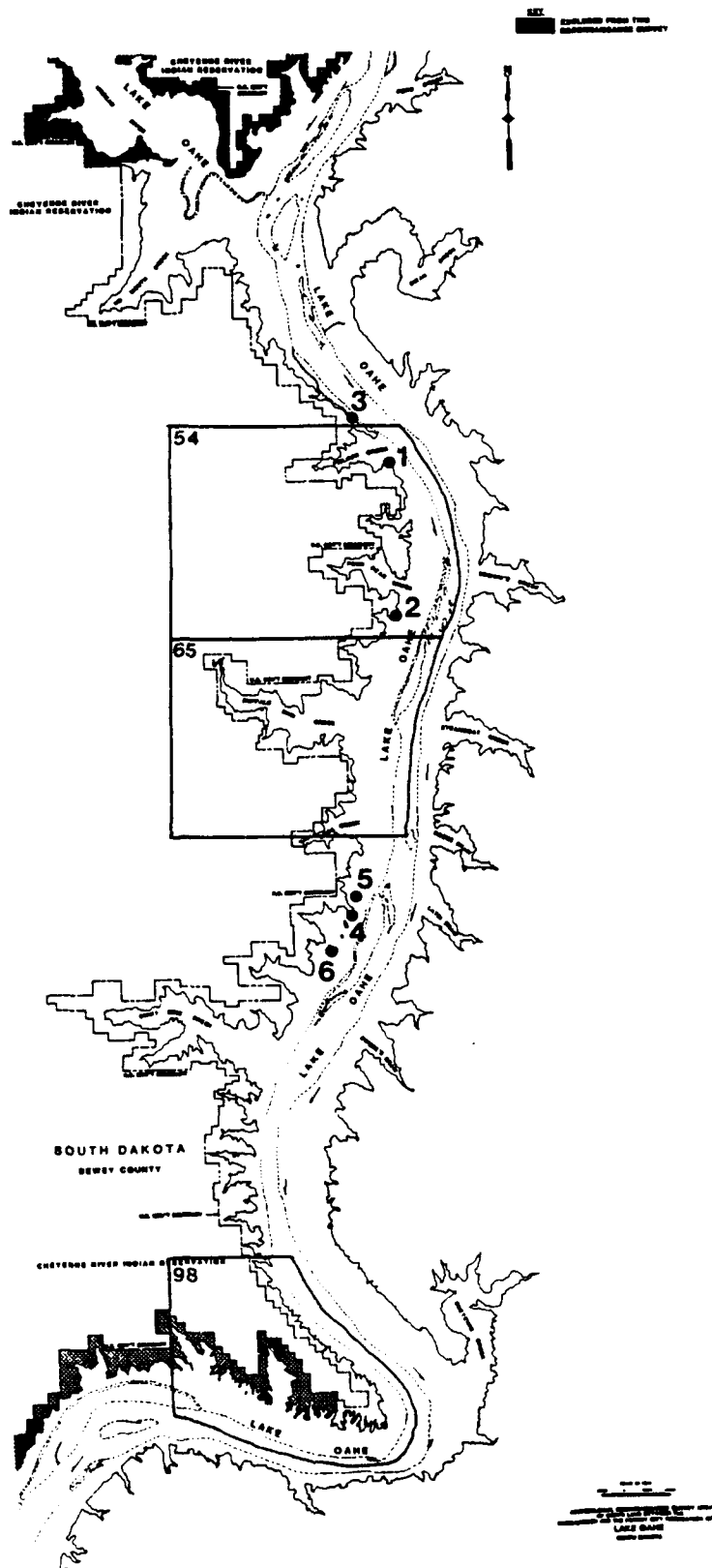


Figure 2. Map of the Dewey County survey area showing the six localities inspected during the geomorphological field reconnaissance and the location of soil map sheets 54, 65 and 98 (detailed in Figures 5-7).

soils are developed, in contrast, directly on the Cretaceous shale bedrock.

At the site, bone fragments, ceramic sherds, lithic flakes, and an orange-stained hearth are observable at the 7-10 cm depth in abundant cross-sectional exposures caused by multiple failure planes (slumping) (Figure 12). The exposures are of the loess cap on this terrace and, more rarely, the upper 0.5 m of clay-matrix glacial gravel. No very prominent buried soils are present, but two weak paleosols are visible: one near the gravel-loess contact, and one buried by only approximately 7 cm of what could be very young (this century) eolian silt. The Munsell color of this silt is 2.5Y/2d light brownish-gray. The buried Ah horizon is only ca. 10 cm thick, is slightly darker, and contrasts with an underlying, carbonate-enriched Bk horizon with carbonate filaments and stringers. This is another reasonably intact, but relatively young, prehistoric buried site being negatively affected by reservoir-related bank slumping.

Locality 2 (site 39DW14): This is an earthlodge village site subject to bank slumping, leaving vertical exposures that indicate the village was established on or within an Ah/Bk (inceptisol) soil profile developed on eolian silts. The silts bury, in turn, a prominent Ah/Bk/Bt soil profile (a buried mollisol) developed on floodplain facies of an old Missouri River terrace. The site may exist because of the proximity of a large tributary stream; associated and coeval villages may have been located along the now-inundated valley floor nearby. One approach to test this hypothesis would be to rank tributary junction mouths by their estimated discharges (as in Brakenridge 1977) and compare such discharges with the regional distribution of sites.

Although no deeply buried artifacts were located, the village appears to have been established somewhat earlier than the last site (39DW213). A large bison bone as well as large pieces of ceramic sherds were retrieved from the exposure at positions about 60 cm below the surface and its associated Ah horizon. One lodge floor is bisected by the modern slump bank. The general situation is similar to that for the Walth Bay site: archeologists may reasonably be expected to find traces of much older (Paleoindian or Archaic) peoples above the prominent paleosol and within the loess. A program of deep subsurface testing at

this site is, therefore, recommended. The objectives would be to determine the depth and areal extent of the village site and the presence or absence of older (buried) archeological components.

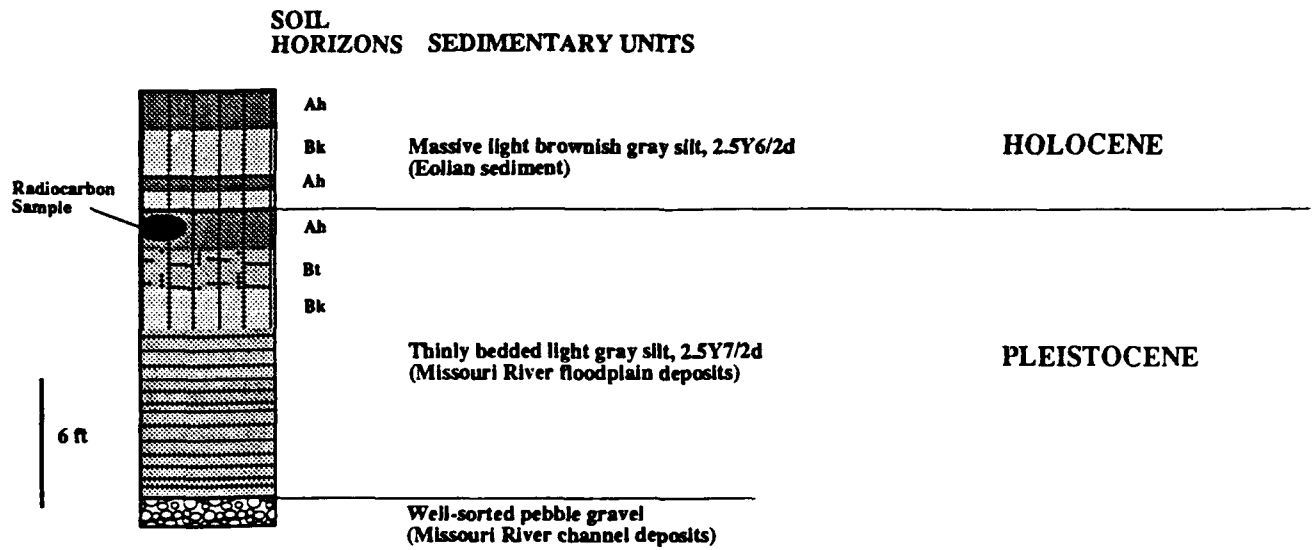
Related geoarcheological questions that could be addressed at this site are: 1) Where does this loess-capped terrace fall in the Missouri River terrace sequence? 2) How do the details of soil development (e.g., quantitative data for the Ah, Bk, and Bt horizons) compare to the Walth Bay and the Riverdale (North Dakota) loess cross-sections? 3) Was this terrace already subject to natural erosion before Oahe Reservoir construction, or is such erosion entirely post-dam? 4) What was the geomorphic situation of the village site prior to dam construction? Lastly, 5) Why is a thin, very young loess cap absent here, but present at other village localities? Answers to these questions would improve our ability to interpret the stratigraphy and location of buried site-bearing deposits here, and elsewhere along the reservoir shoreline.

A radiocarbon sample was obtained at a depth of 3.5-4.5 feet below the surface and 8 feet west of the lodge floor currently exposed, shown on the measured section (Figure 3). This sample has not been submitted for dating at this time.

Locality 3: At this locality, light brown eolian silt occurs over approximately 1 m thick vertical exposures of Cretaceous Pierre Shale. Within the silt caps are two buried Ah horizons. The uppermost horizon is approximately 5-10 cm thick, and is separated from the lower-most, 30 cm thick horizon, by approximately 30 cm of silt. Bone fragments were noted at several locations between the two soil profiles, but were rare and widely scattered. No clearly cultural materials were observed. Dupree-Sansarc-Opal soils are shown on the soil survey maps along this reach of the Oahe shoreline, thus demonstrating that the county soil maps do not correctly show the location of all of the eolian parent materials. As noted, the location of such silty parent materials is very important to archeological investigations because of their potential for containing buried sites.

Locality 4: This is a major exposure on what was (at low reservoir level) an elongated peninsula. Here, Pierre Shale is covered by ca. 1 m of cobble gravels of pre-Holocene age. The gravel is overlain by 1+ m

39DW14: BANK EXPOSURE ADJACENT TO EARTH LODGE VILLAGE



SYMBOLLOGY KEY

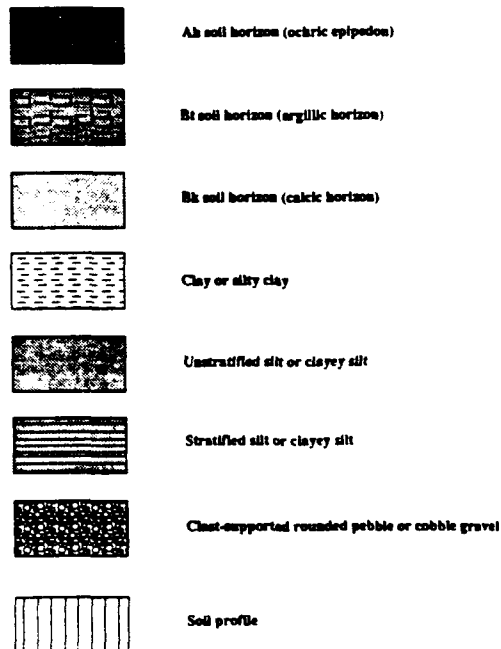


Figure 3. Section recorded at Locality 2 (39DW14).

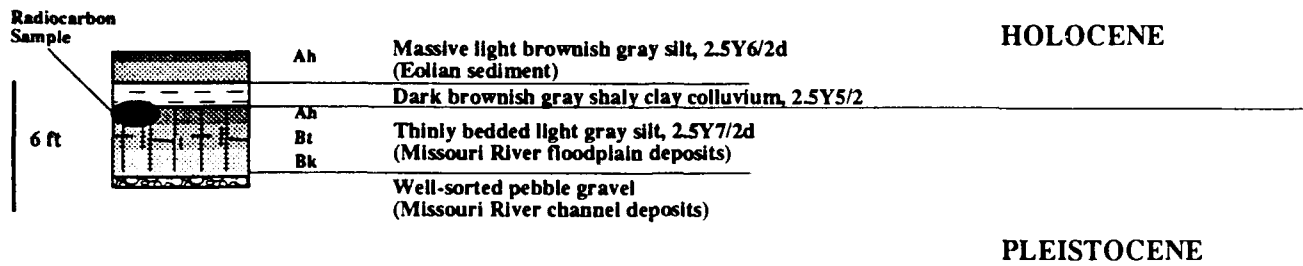
of stratified light brown silt (probably Missouri River overbank sediments of Pleistocene age), itself covered by varying thicknesses of unstratified light brown eolian silt. Again, as noted, the latter may locally be of Holocene age, and potentially contain buried sites. One dark gray buried Ah horizon was visible near the upper surface of the loess deposits. Surprisingly, no prominent surface soil profile was observed in these bank exposures. The county soil maps again do not record the presence of the eolian deposits; only Pierre Shale parent materials are listed for the surface soils here mapped. No artifacts were observed along the shoreline, but two sites are present on the peninsula promontory -- 39DW139 (artifact scatter - bone and lithics) and 39DW140 (cairn).

Locality 5: This location is normally an island, but due to low water was connected to the shoreline at the time of our visit. The bank exposures along the perimeter of this landform are mainly of shale bedrock. However, approximately 0.5-1.0 m of a shale-clast cobble gravel (with less common crystalline bedrock clasts) is locally exposed, and is superposed over a 0.5 m thick dark gray paleosol developed on the shale. Above the gravel at some locations is 1-2 m of brown silt that may be either eolian or fluvial overbank deposits. No artifacts were observed along the shoreline.

Locality 6: This locality (Plate 1) is at a lower elevation and is normally a flat-topped island, being nearly submerged at high reservoir stages and joined to the shore at low reservoir levels, as at the time of this study. It is a loess-capped river terrace similar to that exposed beneath site 39DW14. The base of the exposure shown in Figure 4 was approximately 11 feet above the reservoir water level of October 24 (1591 feet amsl); and the top of the exposure was approximately 18.5 feet above this water level. About 200-300 feet of shoreline exposure is present, and the modern surface topography is erosional and created by small tributary drainages. As a result, at some locations along the exposure, the loess deposits underlie the modern surface; at others, the prominent buried Ah/Bt/Bk mollisol is present at the surface; and at still others, the subsoil overbank fluvial silts reach to the surface.



Plate 1. Exposure at Locality 6, facing northwest.



SYMBOLLOGY KEY




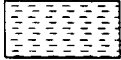




	Ah soil horizon (ochric epipedon)
	Bt soil horizon (argillic horizon)
	Bk soil horizon (calcic horizon)
	Clay or silty clay
	Unstratified silt or clayey silt
	Stratified silt or clayey silt
	Clast-supported rounded pebble or cobble gravel
	Soil profile

Figure 4. Section recorded at Locality 6.

The loess, of possible Holocene age, exhibits Munsell colors of 2.5Y7/2 or 10YR7/2 (dry) and 2.5Y4/2 (moist), whereas the fluvial overbank deposits, of pre-Holocene age, exhibit colors of 2.5Y7/4 or 10YR7/5 (dry) and 10YR5/3 (moist). The accompanying verbal descriptions would be: light gray (dry) and dark grayish-brown (moist) for the loess and pale yellow (dry) and very pale brown (moist) for the overbank deposits. Thus, the loess exhibits 2.5Y (dry) hues and 2 (dry or moist) chromas, whereas the fluvial silt exhibits 10YR (moist) hues and 4 and 3 (dry and moist) chromas. The loess is, therefore, more yellowish and not so reddish as the fine-grained fluvial deposits, and its chroma is less; it is paler. Most important, however, is that the loess is unstratified and massive, whereas positive identification of the overbank deposits depends on the recognition of the typical planar bedding. It is critical to correct interpretation of the Late Quaternary exposures along the shoreline that these two similar sedimentary accumulations be distinguished: buried archeological materials are unlikely within the old and relatively high Missouri River terraces and associated fine sand and silt overbank deposits, but such materials may be abundant within Holocene-in-age silt caps.

Two bulk soil samples were submitted to Teledyne Isotopes for radiocarbon dating. These samples came from the two very prominent loess-buried A horizons located in the study area. Sample 1 was from 3.0 to 3.16 meters below the surface at site 39DW14. This sample was processed and observations within the 100 mesh screen showed it to contain a very large diversity of organic matter, mainly in the form of tiny fibers, perhaps root or plant fibers. Some pollen and charred material was present. Overall, the carbon content was low. The sample was not dated since the material appears to be of diverse origin (wind blown) and probably of mixed age such that dates would not be reproducible. More importantly, the sample could not be dated using standard techniques.

Sample 2, obtained from Locality 6, was a bulk soil sample from 1.4 to 1.5 meters below the surface. This sample was processed like Sample 1, but the 100 mesh screen showed less diversity, with dark minerals and charred materials present and a low percentage of carbonates. Again, the carbon content was too low to be dated using standard techniques.

It should be noted that pre-Holocene terrace ages and correlation, the focus of much prior work in the area, are not directly relevant to the archeological problems. Several important sites are entombed within a Holocene eolian cap. Whether the underlying terrace is "MT-3" or "MT-4" is of interest in broad geomorphic terms, but is not immediately useful in interpreting site age. Moreover, terrace elevations are clearly affected by the local presence of the loess deposit: the only meaningful terrace elevation data must be obtained on the top of the fluvial deposits (commonly marked by a buried paleosol) and not the geomorphic landform. Coogan's (1987) study does not address this important question.

In this respect, the ages and stratigraphies exhibited by the loess deposits and entombed paleosols are, in contrast, of critical archeological importance. This subject ought to be addressed directly, by detailed studies of the deposits.

As a guide to the locations of eolian parent materials in the project area, Figures 5-7 [keyed to Figure 2] show land surface areas underlain by deposits that may be of Holocene age. The field study undertaken for this project suggests that most eolian parent materials so mapped are probably accurately portrayed and are high-potential areas for buried sites to be exposed in the reservoir banks; that several important unmapped Holocene loess deposits are today cropping out along fresh reservoir bank exposures; and that not all of these archeologically potentially important units are mapped in the county soil survey. Thus, Figures 5-7 are a very conservative guide to shoreline reaches where buried sites may exist. Figure 2 shows the locations of Localities 1-6, described above, which all have loess deposits.

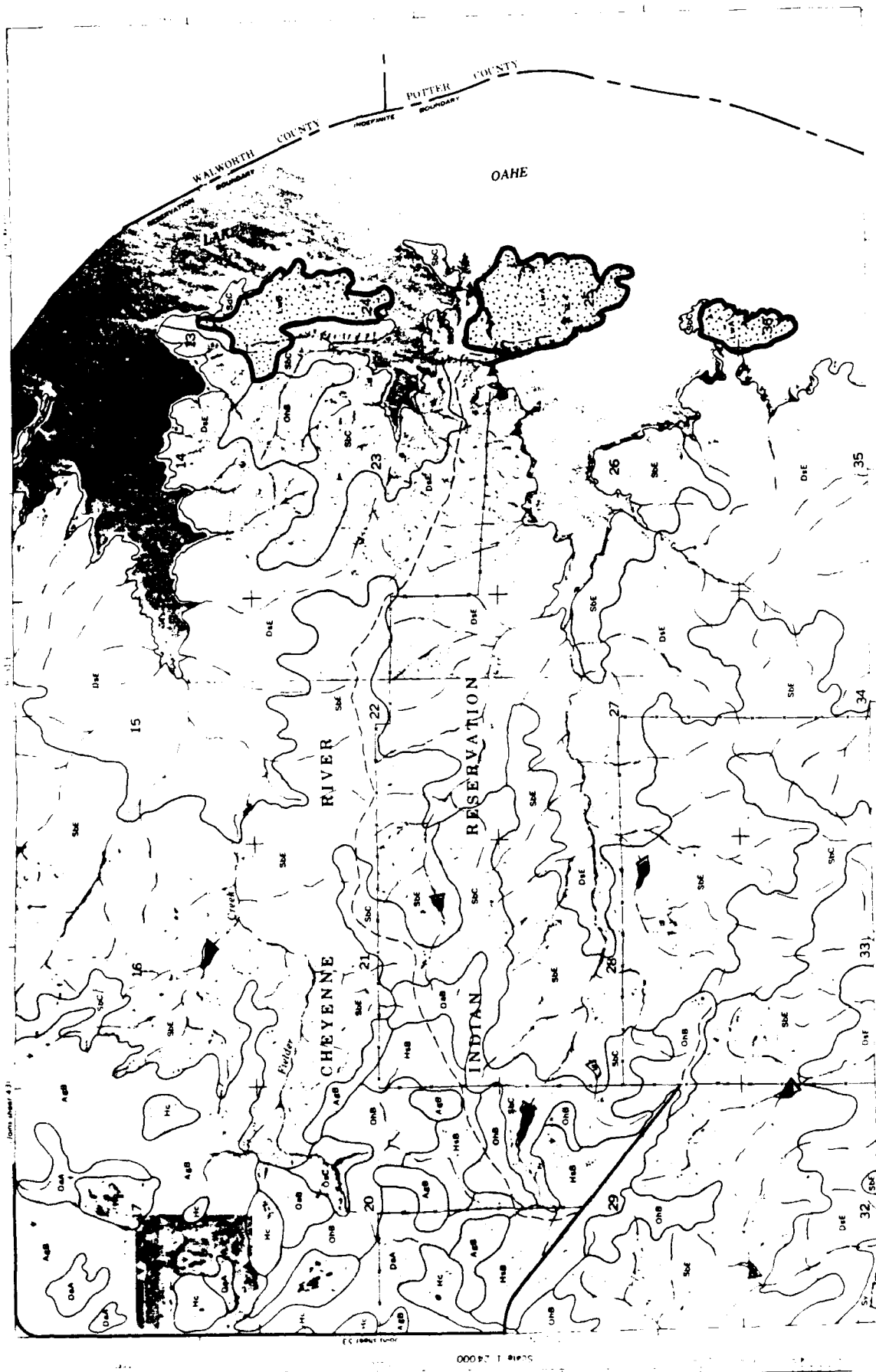


Figure 5. Soil Map sheet 54 showing areas of Lowry silt loam (LwA or LwB) (eolian parent material), which may include Holocene sediments.



Figure 6. Soil Map sheet 65 showing areas of Promise-Swanboy clays (Pw) (tributary alluvium of hillslope colluvium parent material), which may include Holocene sediments.

38



Figure 7. Soil Map sheet 98 showing areas of Lowry silt loam (LWA or LWB) (eolian parent material), which may include Holocene sediments.

Literature and Records Search Overview

Records at several repositories were consulted prior to undertaking the field survey. These repositories included the Omaha District office of the U.S. Army Corps of Engineers (Corps); the Midwest Archeological Center, National Park Service (MAC, NPS) and the Love Library in Lincoln, Nebraska; the South Dakota Historical Preservation Center in Vermillion, South Dakota; the State Archeological Research Center (SDARC) in Rapid City, South Dakota; and the Archeology Laboratory and the Center for Western Studies at Augustana College in Sioux Falls, South Dakota. Most specific information was derived from the Omaha Corps offices and SDARC. During the field survey several repositories in Pierre, South Dakota, were consulted, including the Robinson Museum, the State Library and the Office of the U.S. Army Corps of Engineers Archeologist (South Dakota Area).

The objectives of this initial literature and records search were to determine the following:

1. the location of sites previously recorded in and near the project area;
2. the location of documented structures and activity areas not otherwise recorded as sites;
3. the nature and extent of previous field investigations;
4. the nature and extent of previous analyses of archeological data from the project area; and
5. the general prehistory and history of the project area.

Specific resources examined included the site files and maps maintained at SDARC; old maps of the Missouri River and nearby areas held at the South Dakota State Historical Society (SDSHS) which were produced by the Corps and the War Department; the General Land Office Survey Maps of the area which were available at the South Dakota State Library (State Archives) in Pierre; and old plat maps available at SDSHS. County highway maps for Dewey County, dated 1936, were reviewed at the Stanley County Courthouse, Register of Deeds Office in Fort Pierre. The Omaha District Office of the Corps provided copies of the Missouri River Commission maps of the Missouri River, dated 1894, and the U.S. Army Corps of Engineers Map of the Missouri River, dated 1947.

General Land Office Maps of the project area which were surveyed in 1897-1898 show the following structures, listed in Table 1, as being located close to the project area. All of these structures are now inundated.

Table 1. Structures in the Vicinity of the Dewey County Survey Area
Shown on General Land Office Maps (1897-1898).

LOCATION	STRUCTURE
<u>Township 16N Range 31E</u>	
Section 28	Structure associated with N. Benway.
Section 33	Structure associated with J. Rivers.
<u>Township 15N Range 31E</u>	
Sections 13 and 24	St. Stephens Mission.
Section 25	Structure associated with Louis Mound.
Section 36	Structure associated with Four Bears.
General area	Four unnamed structures.
<u>Township 14N Range 31E</u>	
Section 2	Structure associated with Le Beau and three unnamed structures.
Section 11	One unnamed structure.
<u>Township 13N Range 31E</u>	
Section 3	Church and enclosure (cemetery?).
Section 9	Structure associated with Harry Kingman.
Sections 3, 4 and 9	Seven unnamed structures.
<u>Township 12N Range 31E</u>	
Section 1	Indian Agency Buildings.
Section 2	Church, school, well and several unnamed buildings.

An examination of the Peterson Atlas (1904) showed only the Cheyenne Agency near the project area. Mattison (1954) reports 14 historic sites near the project area, as described in Table 2, below.

Table 2. Historic Sites Near the Dewey County Survey Area Described by Mattison (1954).

RIVER MILE	SITE
482.1	Moreau Community Center.
481.4	Ascension Episcopal Church. The original station was established by Bishop Hare in 1886-1887 and in 1889-1890 a chapel was built. Nearby are several log Indian dwellings. Adjacent to the church is a large active cemetery.
480.5	Old Le Beau (1883-1904). A "ghost town."
480	Lewis and Clark Camp, Oct. 6, 1804. Located about 2 miles below the mouth of the Moreau River.
479.3	New Le Beau (1907-1924). This was an important point from which cattle were first shipped west across the river for fattening. When the cattle were returned they were shipped to markets in St. Paul and Chicago (1907-ca. 1918).
478	Scranton P.O. (1883-1893). Also known as South Le Beau.
475.7	St. Stephens Church. St. Stephens Episcopal Mission - first baptism recorded on May 1, 1877.
470.0	Lewis and Clark Camp, Oct. 5, 1804. Located about 6 miles above the mouth of White Brant Creek.
464.8	Calvary Church. Built in 1886 or 1887 by Bishop Hare. A cemetery is adjacent.
458.9	Whitlocks Crossing. Named for Mrs. J.E. Whitlock, 1924-.
457.2	Medicine Rock. Well-known landmark mapped on Corps map (1892:138). Moved to Gettysburg in 1954.
457	Original Forest City (1883-1890).
456	Forest City (1890-?). Originally known as Forest City South - ghost town.
455.7	Cheyenne River Indian Agency (1891-). Buildings here which were moved from near Old Fort Bennett in 1891 with the move of the Agency to this location were St. John's Chapel and Rectory, several warehouses and several residences.

Several structures are shown near the Missouri River on the 1941 and 1952 Dewey County road maps; all are now inundated.

A search of the site files and records at SDARC provided a list of previously recorded sites potentially within the survey area (Table 3).

Table 3. Previously Recorded Archeological Sites Potentially Within the Dewey County Survey Area and Field Investigation Results.

SITE	FIELD VERIFICATION
38DW14	Relocated.
39DW18	Relocated.
39DW21	Relocated (mostly eroded).
39DW52	Relocated (completely eroded?).
39DW213	Relocated (partly eroded).
39DW215	Relocated.
39DW237	Not relocated, eroded and inundated - camp.
39DW238	Not relocated, eroded and inundated - multicomponent site.

Sites in Dewey County listed in a card file at SDARC as National Register Sites are: 39DW220; 39DW223; 39DW224; 39DW225; 39DW226; and 39DW234 (Molstad Village, listed on the National Register in 1969).

Additionally, at least 45 sites are recorded on USGS quadrangle maps at SDARC as being close to the survey area, but clearly are now inundated. These include the Four Bear site, 39DW2 (Hurt et al. 1962); Over's Swift Bird Creek Villages, 39DW00; Tricia Village/Calvary Church Village, 39DW3/39DW6 (Sigstad and Sigstad 1973:88); Over's Cheyenne Agency Village, 39DW7 (Sigstad and Sigstad 1978:79); and village sites 39DW201-39DW212, 39DW214, and 39DW216-39DW218. The 45 inundated sites which are close to the survey area and 55 nearby sites which are not inundated are shown in Figure 8 and listed in Table 4. These sites are considered in order to provide a comparative basis for the number and types of sites in the project area. The land tracts which encompass these sites, as well as the project area itself, will be referred to as the study area. The study area consists primarily of the Corps lands on either side of the reservoir, as well as inundated land located up to several miles upriver and downriver from the survey area. A block area and areas along Highway 212, all located west of the survey area, are also included in the study area.

A total of 117 components are listed for the sites summarized in Table 4. Pre-Plains Village sites account for only 6-7 percent of this total. Plains Village sites account for over 50 percent of the total. Extended Coalescent villages make up the majority of the Plains Village sites for which a cultural/temporal affiliation has been assigned. Extended Middle Missouri and Post-Contact Coalescent sites are also present. Approximately 20 percent are Historic period sites, while another 20 percent are recorded as either Native American or undetermined. Site types include earthlodge villages (31 percent), cultural material scatters (41 percent), depressions (8 percent), stone circles (5 percent), and cairns (4 percent). A number of site types are represented by only one to three sites, including burials, rock alignments, farm and non-farm historic sites, a town site, a bridge, and isolated finds.

KEY TO FIGURE 8

- | | |
|-----------------------------------------|----------------------------|
| 1. 39DW52; 39DW237; 39DW238 | 44. 39WW72 |
| 2. 39DW7 | 45. 39WW80 |
| 3. Forest City (456) | 46. 39WW18; 39WW77; 39WW78 |
| 4. 39P0204 | 47. 39WW25 |
| 5. 39P042 | 48. 39WW21; 39WW22; |
| 6. Cheyenne River Indian Agency (455.7) | 39WW23; 39WW24; 39WW79 |
| 7. Whitlocks Crossing (458.9) | 49. 39WW19; 39WW20; |
| 8. 39P012/39P02? | 39WW26; 39WW27; 39WW28 |
| 9. 39P08/39P04 | 50. 39WW7; 39WW300; |
| 10. 39P07/39P05 | 39WW301; Lewis and |
| 11. 39DW56 | Clark Camp Oct. 6, |
| 12. 39DW55 | 1804 (480) |
| 13. 39DW54 | 51. 39WW17 (same as 52) |
| 14. 39DW53 | 52. New Le Beau (479.3) |
| 15. 39DW00; 39DW21 | 53. 39WW16; 39WW55 |
| 16. 39DW3/39DW6/39DW22; 39DW19 | 54. Scranton P.O. (478) |
| 17. 39DW16; 39DW201; 39DW202 | 55. 39DW212 |
| 18. 39DW15/39DW4?; 39DW17 (both | 56. 39DW211 |
| same as 39DW8) | 57. St. Stephens Church |
| 19. 39DW62 | (475.7) |
| 20. 39DW60 | 58. 39DW203 |
| 21. 39DW61 | 59. 39P01 |
| 22. Lewis and Clark Camp | 60. 39P038; 39P039 |
| Oct. 5, 1804 (470); 39P0202 | 61. 39P037 |
| 23. 39P0207 | 62. 39P036 |
| 24. 39DW2 | 63. 39P0201 |
| 25. 39DW204; 39DW205; 39DW206; | 64. 39P034; 39P035 |
| 39DW207; 39DW208; 39DW209; | 65. Calvary Church |
| 39DW210 | (464.8); 39DW5 |
| 26. 39DW14 | 66. 39DW20 |
| 27. 39DW18 | 67. 39P033 |
| 28. 39DW213 | 68. 39P020; 39P032 |
| 29. 39DW13; 39DW214 | 69. 39P027; 39P043 |
| 30. 39DW215 | 70. 39P025 |
| 31. Old Le Beau (480.5) | 71. 39P022; 39P023 |
| 32. 39DW216; 39DW217 | 72. 39P026; 39P028; |
| 33. 39DW101 | 39P029; 39P044 |
| 34. 39DW122 | 73. 39P021 |
| 35. 39DW89 | 74. 39P030; 39P031; 39P045 |
| 36. Ascension Church | 75. Original Forest City |
| (481.4) | (457) |
| 37. 39DW90 | 76. Medicine Rock (457.2)/ |
| 38. Moreau Community | 39P0203 |
| Center (482.1) | 77. 39P09; 39P0206 |
| 39. 39DW35/39DW26 | 78. 39P011/39P06? |
| 40. 39DW1; 39DW104; | 79. 39P040 |
| 39DW106; 39DW254 | 80. 30P024 |
| 41. 39DW218 | |
| 42. 39DW224/39DW225 | |
| 43. 39WW203 | |

Note: Three or four digit numbers in parentheses are from Mattison 1954.

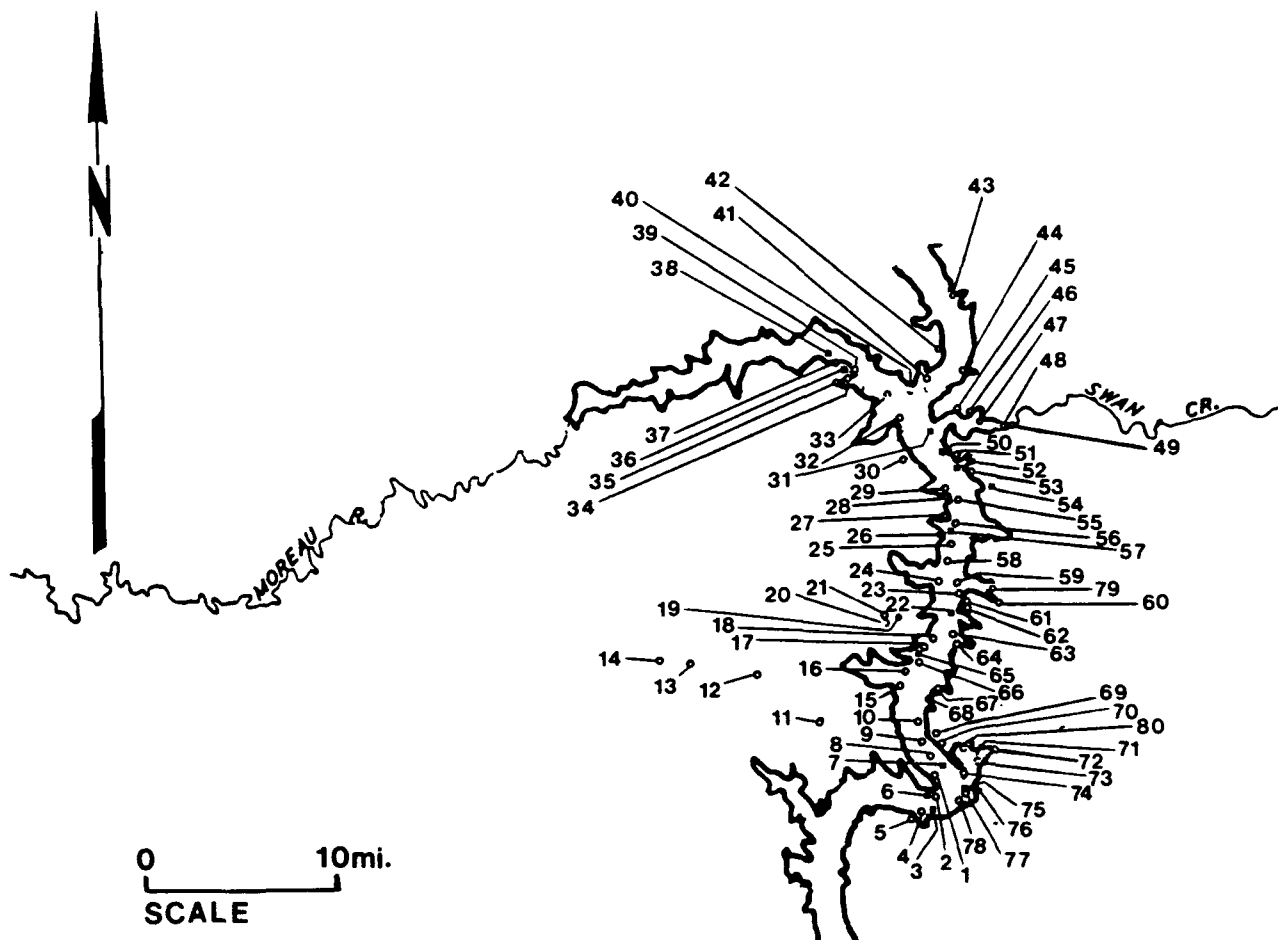


Figure 8. Map showing the location of sites identified during the literature search. Circles indicate sites which have been assigned Smithsonian trinomial numbers. Squares indicate Mattison's (1954) historic sites (several of these sites have also been assigned Smithsonian trinomial numbers - Nos. 22, 50, 65 and 76).

Table 4. Previously Recorded Sites Located Near the Dewey County Project Area
(all of these sites are outside the project area; some are inundated).

SITE NUMBER/ NAME	CULTURAL/TEMPORAL AFFILIATION	SOURCE(S)	SITE TYPE/ DESCRIPTION
39DW00 Swift Bird Creek Villages (inundated)	Arikara? (based on W.H. Over)	Files; Sigstad and Sigstad 1973	Earthlodge village - fortified (Over)
39DW1 Moreau River Village	EC - Arikara	Sigstad and Sigstad 1973; SIRBS; Cooper 1965; Lehmer 1971:117; Falk and Pepperl 1980; Sanders 1988	Earthlodge village - fortified; 60-300 depressions, 12 in fortification
39DW2 (same as 39DW12) Four Bear Village (inundated)	PCC - Arikara? (based on W.H. Over)	Sigstad and Sigstad 1973; SIRBS; Hurt et al. 1962; Cooper 1965; Lehmer 1971: 134; Owsley et al. n.d.	Earthlodge village - fortified; 37? depressions
39DW3 (same as 39DW6)			
39DW4 (same as 39DW15 and 39DW8) Nichols Village (inundated)	EC	Sigstad and Sigstad 1973; SIRBS; Files; Cooper 1965; Lehmer 1971:117	Earthlodge village - fortified; 8 depressions (Over)
39DW5 (inundated) North Calvary Church	Mandan? (based on W.H. Over)	Sigstad and Sigstad 1973; SIRBS	Earthlodge village - 10-12 depressions
39DW6 (same as 39DW3 and 39DW22) Tricia Village/ Calvary Church Village (inundated)	EC	Files; Sigstad and Sigstad 1973; SIRBS; Cooper 1965; Lehmer 1971:117	Earthlodge village - fortified; 12-13 depressions, 2 large and 5 small in forti- fication (Over); 9 depressions according to SIRBS

Notes: EC = Extended Coalescent; PCC = Post Contact Coalescent; EMM = Extended Middle Missouri;
Files = SD State Site Card Files; SIRBS = SIRBS site forms and sites plotted on 1947 map (MAC, NPS)

Table 4. (cont.)

SITE NUMBER/ NAME	CULTURAL/TEMPORAL AFFILIATION	SOURCE(S)	SITE TYPE/ DESCRIPTION
39DW7 Cheyenne Agency Village (inundated)	EC	Sigstad and Sigstad 1973; SIRBS; Cooper 1965; Lehmer 1971:117	Occupation (earth- lodge village?); artifact scatter
39DW8 (same as 39DW15, 39DW17 and 39DW4) (inundated)	EC	Sigstad and Sigstad 1973; SIRBS; Files; Cooper 1965; Lehmer 1971: 117	Earthlodge village - fortified
39DW9 (same as 39DW13 and/ or 39DW214) (inundated)	Arikara?	SIRBS; Files; Cooper 1965; Falk and Pepperl 1980	Earthlodges (ca. 80)
39DW12 (same as 39DW2) (inundated)			
39DW13 (inundated)	EC	SIRBS; Cooper 1965; Lehmer 1971:117; Files	Earthlodges
39DW15 (same as 39DW4 and 39DW8)			
38DW16 (inundated)	EC	SIRBS; Cooper 1965; Lehmer 1971:117	Earthlodges
39DW17 (same as 39DW8) (inundated)	EC	SIRBS; Files; Cooper 1965; Lehmer 1971:117	Earthlodges
39DW19 (inundated)	EC	SIRBS; Cooper 1965; Lehmer 1971:117	Occupation
39DW20 (inundated)	Plains Village	SIRBS; Cooper 1965	Earthlodges

Table 4. (cont.)

SITE NUMBER/ NAME	CULTURAL/TEMPORAL AFFILIATION	SOURCE(S)	SITE TYPE/ DESCRIPTION
39DW22 (same as 39DW6 and 39DW3)			
39DW26 (same as 39DW35)			
39DW35 (same as 39DW26) Three Horse	Prehistoric (Archaic?); Historic Native American	SIRBS; Boyd 1979; Falk and Pepperl 1980; Sanders 1988	Depressions (3) and artifact scatter
39DW60	Native American	Messerli 1986	Cairns (2)
39DW61	Prairie Side-Notched?	Messerli 1986	Isolated find - projectile point fragment, four burned bone fragments
39DW62	Native American	Messerli 1986	Stone circles (15-12 whole and 3 partial); cairns (4)
39DW89	Native American	Sanders 1988	Artifact scatter
39DW90	Native American?	Sanders 1988	Cairn
39DW101	EC; EMM?	Sanders 1988	Earthlodge village - two circular depressions
39DW104	Historic Native American?	Sanders 1988	Depression - 2 foun- dations, 11 depres- sions and artifact scatter

Table 4. (cont.)

SITE NUMBER/ NAME	CULTURAL/TEMPORAL AFFILIATION	SOURCE(S)	SITE TYPE/ DESCRIPTION
39DW106	Undetermined Association	Sanders 1988	Artifact scatter
39DW122	Late Archaic	Sanders 1988	Isolated find
39DW201 (inundated)	EC; Euro-American	SIRBS; Lehmer 1971:117	Earthlodge village - indistinct
39DW202 (inundated)	Plains Village	SIRBS	Earthlodge village - 5 depressions; possible (erosional) ditch
39DW203 (inundated)	Plains Village	SIRBS	Earthlodge village - 10 depressions
39DW204 (inundated)	Plains Village	SIRBS	Earthlodge village - 15 depressions
39DW205 (inundated)	Plains Village	SIRBS	Earthlodge village - 10 depressions (2 sets of 5 each)
39DW206 (inundated)	Plains Village	SIRBS	Earthlodge village - 15 depressions
39DW207 (inundated)	Plains Village	SIRBS	Earthlodge village - 3 groups, average 25' diameter
39DW208 (inundated)	Plains Village	SIRBS	Earthlodge village - rectangular?, faint, series of

Table 4. (cont.)

SITE NUMBER/ NAME	CULTURAL/TEMPORAL AFFILIATION	SOURCE(S)	SITE TYPE/ DESCRIPTION
39DW209 (inundated)	EC	SIRBS; Lehmer 1971: 117	Earthlodge village and stone circles
39DW210 (inundated)	EC	SIRBS; Lehmer 1971: 117	Earthlodge village - 6 large (70') and 10 small depressions; faint ditch
39DW211 (inundated)	EC	SIRBS; Lehmer 1971: 117	Earthlodge village - faint
39DW212 (inundated)	Plains Village	SIRBS	Earthlodge village - several
39DW214 (inundated)	Plains Village	SIRBS	Earthlodge village - ca. 20
39DW216 (inundated) West Le Beau	Plains Village	SIRBS; Falk and Pepperl 1980	Earthlodge village - 31 depressions; possibly fortified
39DW217 (inundated)	EC	SIRBS; Lehmer 1971: 117; Falk and Pepperl 1980	Earthlodge village
39DW218 (inundated)	EC; Euro-American	SIRBS; Lehmer 1971: 117; Falk and Pepperl 1980	Earthlodge village - several depressions, faint; foundation
39DW237 (inundated)	Plains Village	SIRBS	Artifact scatter
39DW238 (inundated) Natchke site	Woodland; Native American?	SIRBS	Occupation - 5 lenses

Table 4. (cont.)

SITE NUMBER/ NAME	CULTURAL/TEMPORAL AFFILIATION	SOURCE(S)	SITE TYPE/ DESCRIPTION
39DW254 (inundated)	EC	SIRBS; Lehmer 1971; 117; Sanders 1988	Depression and artifact scatter
39P01 (inundated) Steamboat Creek Village	PCC	Sigstad and Sigstad 1973; SIRBS; Cooper 1965; Lehmer 1971:134	Earthlodges - large
39P02 (same as 39P012)			
39P04 (same as 39P08)			
39P05 (same as 39P07) Frank Risen Village II	EC	Sigstad and Sigstad 1973; SIRBS; Files; Cooper 1965	Earthlodge village - fortified; 15 depres- sions, rectangular and circular; two occupations
39P06 (same as 39P011)			
39P07 (same as 39P05) Hosterman site (inundated)	EC; Arikara? (based on Miller)	Sigstad and Sigstad 1973; SIRBS; Miller 1964; Lehmer 1971:117	Earthlodge village - fortified
39P08 (same as 39P04) Frank Risen Village I (inundated)	EC	Sigstad and Sigstad 1973; SIRBS; Files; Cooper 1965; Lehmer 1971:117	Occupation
39P09 (inundated)	EC	SIRBS; Cooper 1965; Lehmer 1971:117	Occupation
39P011 (same as 39P06) Forest City Village (inundated)	EC	Sigstad and Sigstad 1973; SIRBS; Cooper 1965; Lehmer 1971:117	Earthlodges

Table 4. (cont.)

SITE NUMBER/ NAME	CULTURAL/TEMPORAL AFFILIATION	SOURCE(S)	SITE TYPE/ DESCRIPTION
39P012 (same as 39P02) Little Cheyenne River Village? (inundated)	Plains Village	Sigstad and Sigstad 1973; SIRBS; Files; Cooper 1965	Earthlodge village -- fortified
39P020 (inundated) Lake Koka	----	SIRBS	---
39P021	Plains Village?; Euro-American?	Falk and Pepperl 1986	Artifact scatter and stone circle
39P022	Native American	Falk and Pepperl 1986	Stone circles (10), artifact scatter and 3 stone groups
39P023	Plains Village?	Falk and Pepperl 1986	Stone circles (8), artifact scatter and 2 stone groups
39P024	Native American	Falk and Pepperl 1986	Stone circles (4) and artifact scatter
39P025	Euro-American (early twentieth century?)	Falk and Pepperl 1986	Depressions (4), artifact scatter and 1 brick-lined well and artifact scatter
39P026	Native American	Falk and Pepperl 1986	Artifact scatter
39P027	Euro-American (early twentieth century)	Falk and Pepperl 1986	Depression and artifact scatter

Table 4. (cont.)

SITE NUMBER/ NAME	CULTURAL/TEMPORAL AFFILIATION	SOURCE(S)	SITE TYPE/ DESCRIPTION
39P028	Native American	Falk and Pepperl 1986	Artifact scatter
39P029	Plains Village	Falk and Pepperl 1986	Artifact scatter
39P030	Native American (Woodland?)	Winham and Lueck 1983; Falk and Pepperl 1986	Artifact scatter
39P031	Native American	Falk and Pepperl 1986	Artifact scatter
39P032	Euro-American (early twentieth century?)	Falk and Pepperl 1986	Artifact scatter
39P033	Euro-American (late nineteenth century?)	Falk and Pepperl 1986	Depressions (2) and artifact scatter
39P034	EC	Falk and Pepperl 1986	Artifact scatter - with hearth
39P035	Plains Village	Falk and Pepperl 1986	Artifact scatter
39P036	Euro-American (early twentieth century?)	Falk and Pepperl 1986	Depression and artifact scatter
39P037	Euro-American (early twentieth century?)	Falk and Pepperl 1986	Depression and artifact scatter

Table 4. (cont.)

SITE NUMBER/ NAME	CULTURAL/TEMPORAL AFFILIATION	SOURCE(S)	SITE TYPE/ DESCRIPTION
39PO38	Euro-American (early twentieth century?)	Falk and Pepperl 1986	Farmstead? - ceramic tile foundation and machine part scatter
39PO39	Euro-American (early twentieth century?)	Falk and Pepperl 1986	Depression and artifact scatter; rock alignment (dam?)
39PO40	Euro-American (early twentieth century?)	Falk and Pepperl 1986	Depression and artifact scatter
39PO42	Undetermined Association	Falk and Pepperl 1986	Artifact scatter
39PO43	Native American	Falk and Pepperl 1986	Artifact scatter
39PO44	Undetermined Association	Falk and Pepperl 1986	Alignment?
39PO45	Native American	Falk and Pepperl 1986	Artifact scatter
39PO201 (inundated) Latin Draw site	Plains Village	SIRBS; Cooper 1965	Occupation
39PO202 (inundated)	Plains Village	SIRBS; Cooper 1965	Occupation - probably earthlodges
39PO203 (inundated- removed) Medicine Rock	Native American	Sigstad and Sigstad 1973; SIRBS; Cooper 1965	Medicine rock
39PO204 (inundated)	Plains Village?	SIRBS	Occupation
39PO206 (inundated)	Euro-American	SIRBS	Artifact scatter

Table 4. (cont.)

SITE NUMBER/ NAME	CULTURAL/TEMPORAL AFFILIATION	SOURCE(S)	SITE TYPE/ DESCRIPTION
39PO207 (inundated) Second Hand site(?)	Native American	SIRBS	Burial(s)
39WW7 (inundated) Swan Creek	EC, PCC	Sigstad and Sigstad 1973; SIRBS; Hurt 1957; Cooper 1965; Lehmer 1971:117, 134; Owsley et al. n.d.	Earthlodge village (fortified) and burial Occupation
39WW16	Plains Archaic period?	Falk and Pepperl 1986	Artifact scatter
39WW17 Le Beau/ New Le Beau	Euro-American (1907-1925)	Mattison 1954:74-76; Falk and Pepperl 1986	Townsite - 20 depressions, 1 mound, 12 rock foundations, 4 cisterns, 3 rock piles and artifact scatter
39WW18	Euro-American (early twentieth century?)	Falk and Pepperl 1986	Non-farm ruins? - clustered rocks (2 foundations), depres- sion, artifact scatter
39WW19	EC, PCC	Falk and Pepperl 1986	Occupation - buried artifacts and hearth, artifact scatter
39WW20	Native American	Falk and Pepperl 1986	Artifact scatter
39WW21	Native American	Falk and Pepperl 1986	Occupation - buried artifacts and hearth?

Table 4. (cont.)

SITE NUMBER/ NAME	CULTURAL/TEMPORAL AFFILIATION	SOURCE(S)	SITE TYPE/ DESCRIPTION
39WW22	Plains Woodland?; Euro-American	Falk and Pepperl 1986	Occupation - buried artifacts
39WW23	Plains Village	Falk and Pepperl 1986	Occupation - buried artifacts and hearth
39WW24	Undetermined Association	Falk and Pepperl 1986	Artifact scatter - buried lens of animal bone
39WW25	Euro-American (early-mid twentieth century)	Falk and Pepperl 1986	Non-farm ruins? - depression, stone foundation, rock scatters, recent trash
39WW26	Plains Village; Euro-American	Falk and Pepperl 1986	Artifact scatter
39WW27	Native American; Euro-American	Falk and Pepperl 1986	Artifact scatter
39WW28	Native American	Falk and Pepperl 1986	Artifact scatter - and buried bone and charcoal
39WW55 Little Runner site	Pre-ceramic?	Weston et al. 1979; Falk and Pepperl 1980, 1986	Artifact scatter - buried
39WW72	Plains Village	Falk and Pepperl 1986	Artifact scatter

Table 4. (cont.)

SITE NUMBER/ NAME	CULTURAL/TEMPORAL AFFILIATION	SOURCE(S)	SITE TYPE/ DESCRIPTION
39WW77	Undetermined Association	Falk and Pepperl 1986	Cairn (1)
39WW78	Native American; Euro-American	Falk and Pepperl 1986	Cairn (1); artifact scatter - historic scatter and chipped stone tool
39WW79	Euro-American (early twentieth century)	Falk and Pepperl 1986	Steel truss vehicular bridge
39WW80	Undetermined Association	Falk and Pepperl 1986	Cairns (2)
39WW300 (inundated)	Plains Village	SIRBS; Falk and Pepperl 1980	Possible earthlodge village - 3 refuse mounds
39WW301 (inundated)	EC	SIRBS; Lehmer 1971; 117; Falk and Pepperl 1980	Burial - 2 depres- sions, 1 refuse mound

The Missouri River Commission Maps of 1894 show a number of structures near the project area. These same structures are shown on the Missouri River Commission Map of 1892 with some additional information provided (Table 5 below):

Table 5. Structures Shown on the Missouri River Commission Maps of 1892 Near the Dewey County Survey Area.

MAP #	STRUCTURES SHOWN
Sheet 43:	Road from Cheyenne River Indian Agency to Ft. Bennett Cheyenne River Indian Agency, School, Cemetery Moses Spirit Eagle [Indian] (S of White Brant Creek) Bird School House - cemetery to west (S. Bird on 1892 map) Site of Indian Village
Sheet 44:	Monument Site of Indian Village (39DW2? - Four Bear Village) Le Beau School Ho. Four Bears (Indian) St. Stephens Mission River (Joseph Rivers on 1892 map)

The Corps Missouri River Maps (1947) (Sheet 93) add one other site that is within the survey area, namely Swift Bird Cemetery (Calvary Episcopal Cemetery Nos. 1 and 2 (Swift Bird)) (BIA 1951:12). The Corps maps show, in addition, a Swift Bird Church and Cemetery about one-quarter of a mile southeast of the above. The latter are now inundated. The former cemetery was not relocated during the current survey. It contained 87 individuals - apparently 5 interments in Section 3, T13N, R31E and 82 in Section 34, T14N, R31E. Relocation by the Corps and subsequent erosion have apparently destroyed all evidence of the cemetery. The area is highly eroded Pierre Shale.

Previous Cultural Resource Investigations

Table 6 summarizes previous investigations conducted within the Dewey County survey area while Table 7 summarizes previous investigations accomplished near the current survey area, but outside of the project boundaries. These investigations are discussed together, rather than as separate sections, in order to provide a chronological sketch of previous archeological work in the study area. As noted previously, the study area is comprised primarily of Corps lands on either side of the reservoir, as well as inundated areas located up to several miles upriver and downriver of the project area. Two investigations undertaken west of the current survey area are also included; one of these projects was conducted along Highway 212 and the other covered a block area about 6 miles northeast of Highway 212 and about 1½ miles west of the survey area.

William H. Over accomplished the earliest recorded archeological surveys in the current study area. From ca. 1912-1946, Over, working both independently and under the auspices of the University of South Dakota Museum, conducted surveys of the Missouri River. His records document 14 sites located near the project area: 39DW00, 39DW1, 39DW2, 39DW5, 39DW6, 39DW7, 39DW8, 39P01, 39P07, 39P08, 39P011, 39P012, 39P0203 and 39WW7. Over's most intensive investigation was undertaken at the Swan Creek site (39WW7) where he opened nine graves in the eastern part of the site (the cemetery), and a lodge depression "...in the extreme north end of the small portion of the fortified village" (Sigstad and Sigstad 1973:304-313). Hurt (1957:14-15) also reports Over's burial excavations.

Over's records, including the descriptions of many other sites, have been revised and reproduced in Sigstad and Sigstad (1973). His original records were directly or indirectly consulted by personnel involved with the Smithsonian Institution River Basin Surveys (SIRBS) program (see Wedel 1953a:27).

During the period covering W.H. Over's work, George F. Will and Thaddeus C. Hecker also investigated archeological sites along the Missouri River. Although most of their work took place in North Dakota, Will's initial report (1924) tabulated a number of sites in the vicinity of the Grand and Moreau rivers, including a village of 60 lodges near the mouth of the Moreau River, possibly correlating with sites 39DW216

Table 6. Previous Investigations In the Dewey County Project Area
(listed by year of investigation).

PRINCIPAL INVESTIGATOR/ PRIMARY INDIVIDUAL	SPONSORING AGENCY	YEAR	TYPE OF INVESTIGATION
Dorothy E. Fraser	SIRBS	1949	Archeological
Paul L. Cooper	SIRBS	1949	Archeological
Waldo R. Wedel and Frank W. Calhoun	SIRBS	1951	Archeological
W.R. Farrell and Jake J. Hoffman	SIRBS	1952	Archeological
Ray H. Mattison	NPS	1946-1952	Historical
Keith G. Ryder	Corps	1978	Archeological
Keith G. Ryder	Corps	1978	Archeological
Timothy R. Nowak	Corps	1982	Archeological
Karen Nitzschke	Independent	1983	Archeological
Timothy R. Nowak	Corps	1984	Archeological
Thomas W. Haberman	SDARC	1985	Archeological
Thomas W. Haberman	SDARC	1986	Archeological
Timothy R. Nowak	Corps	1986	Skeletal Analysis

Table 7. Previous Investigations Near the Dewey County Project Area
(listed by year of investigation).

PRINCIPAL INVESTIGATOR/ PRIMARY INDIVIDUAL	SPONSORING AGENCY	YEAR	TYPE OF INVESTIGATION
--	Corps and Missouri River Commission	1892	Maps
William H. Over	University of South Dakota Museum (USD)	1912-1946?	Archeological
Thaddeus C. Hecker and George F. Will	State Historical Society of North Dakota (SHSND)	ca. 1924-1944	Archeological
--	Corps	1947	Maps
Dorothy E. Fraser	SIRBS	1949	Archeological
Paul L. Cooper	SIRBS	1949	Archeological
Richard P. Wheeler	SIRBS	1951	Archeological
W.R. Farrell and Jake J. Hoffman	SIRBS	1952	Archeological
Rob Natchke	Independent	1952	Archeological
Ray H. Mattison	NPS	1946-1952	Historical
Richard P. Wheeler	SIRBS	1953	Archeological
Wesley R. Hurt, Jr.	South Dakota Archaeological Commission (SDAC) with USD and NPS	1954	Archeological
Richard P. Wheeler	SIRBS	1954	Archeological
Wesley R. Hurt, Jr.	SDAC, USD and NPS	1955	Archeological

Table 7. (cont.)

PRINCIPAL INVESTIGATOR/ PRIMARY INDIVIDUAL	SPONSORING AGENCY	YEAR	TYPE OF INVESTIGATION
Wesley R. Hurt, Jr.	SDAC	1956	Archeological
Carl F. Miller	SIRBS	1956	Archeological
R.P. Wheeler, G. Hubert Smith, and L.C. Madison	SIRBS	1956	Archeological
---	SIRBS	1957	Archeological
Wesley R. Hurt, Jr.	SDAC	1958	Archeological
Wesley R. Hurt, Jr.	SDAC	1959	Archeological
William M. Bass	SIRBS	1962	Archeological
Oscar L. Mallory	SIRBS	1963	Archeological
Rebecca J. Boyd	Corps	1978	Archeological
Carl R. Falk and Robert E. Pepperl	University of Nebraska-Lincoln (UNL)	1979	Archeological
Falk and Pepperl	UNL	1979	Archeological
Timothy R. Nowak	Corps	1980	Archeological
R. Peter Winham and Edward Lueck	Archeology Laboratory, Augustana College (AL)	1982	Archeological
Winham and Lueck	AL	1985-1986	Archeological
Thomas F. Messerli	SDARC	1986	Archeological
Paul H. Sanders	Larson-Tibesar Associates	1986	Archeological

and 39DW217 (Will 1924:310). Will's list used the accounts of Lewis and Clark and sites plotted on the 1892 Corps of Engineers topographic maps, which show 39DW2, 39DW8, and 39WW7 (same on MRC 1894 maps). The subsequent 1947 Corps map shows 39DW2, 39P01 and part of 39WW7.

The inception of the SIRBS surveys marks the next recorded work in the area. The first of these surveys took place in 1949, with Dorothy E. Fraser's visit to 39DW7, 39DW18 and 39P07 (among others), and Paul L. Cooper's surveys of 39DW14, 39P07, 39P011 and 39P012 (among others).

An additional 16 archeological or historical investigations were carried out in the project domain and/or nearby areas by SIRBS personnel and associated groups. These 16 investigations involved 10 different SIRBS expeditions and six related investigations (Wesley R. Hurt, Jr. 1954-1956, 1958-1959 and Mattison 1946-1952). The 10 SIRBS investigations are identified with W.R. Wedel and F.W. Calhoun in 1951; R.P. Wheeler in 1951, 1953 and 1954; W.R. Farrell and J.J. Hoffman in 1952; C.F. Miller in 1956; R.P. Wheeler, G.H. Smith and L.C. Madison in 1956; an unidentified party in 1957; W.M. Bass in 1962; and Oscar L. Mallory in 1963.

One of the two SIRBS investigations conducted in 1951 was Wedel and Calhoun's visit to site 39DW21. The other was Wheeler's examination of 39P07.

In 1952, a two-man party consisting of W.R. Farrell and Jake J. Hoffman surveyed areas in and near the current project area in Dewey County and recorded a number of sites, including 39DW201-39DW218, 39P0201-39P0204, and 39P0206-39P0207.

An extensive literature search and seven field trips were accomplished by Ray H. Mattison and Merrill J. Mattes in the period 1946-1952 to identify historical aspects of the Oahe Reservoir. Mattison and Mattes were historians for the Region Two Office, National Park Service. Their literature searches and surveys involved several months of intensive research on original and secondary materials contained in libraries in Pierre, South Dakota; Lincoln and Omaha, Nebraska; Bismarck, North Dakota; and Washington, D.C. Mattison (1954) identifies 14 significant historical sites or points in the area near the project domain. While Mattison's search and survey represent an intensive effort, he does not provide an evaluation of a common type of site known from nearby areas, specifically, occupation and use sites

associated with the Reservation period and Euro-American settlement of the area. None of these site types was identified during the current survey. The historic sites identified by Mattison, which are inundated near the project area, are listed in Table 2.

Finally in 1952, Bob Natchke, a resident of Whitlocks Crossing who collected from the Natchke site (39DW238) and site 39DW237, informed the SIRBS of the sites and donated the collected materials to them. Richard P. Wheeler revisited these two sites in 1953, and the Natchke site again in 1954.

The other investigation conducted in the area in 1954 consisted of extensive excavations at the Swan Creek site (39WW7) under the direction of Wesley R. Hurt, Jr. The project involved the joint efforts of the South Dakota Archaeological Commission, the University of South Dakota Museum and the National Park Service. This work continued in 1955 and 1956, with excavations at sites 39WW300 and 39WW301 also undertaken in 1955. During the three seasons of fieldwork, the parties excavated two houses and a large ceremonial lodge; a trench through a fourth lodge; a trench through refuse mounds and a fortification ditch at the east and west ends of the main village area; five plus units in the cemetery to the east of the village; and units which cut through another several refuse mounds and four excavation units. The parties also excavated three small units in 39WW301; a trench through a refuse mound of 39WW300; and several small stratigraphic tests at the Payne site (39WW302) and the Whitetail site (39WW303) (Hurt 1957:iv). Four separate occupations and two distinct foci, designated the Akaska focus and Le Beau focus, were identified at the Swan Creek site (Hurt 1957:26).

Two SIRBS parties worked near the project area in 1956. R.P. Wheeler, G. Hubert Smith and L.C. Madison visited the Natchke site (39DW238), and Carl F. Miller directed extensive excavations at the Hosterman site (39P07--same as 39P05). Miller's party excavated all of one house and parts of two others, areas between the houses, and a trench across the fortification ditch (Miller 1964). Both rectangular and circular lodges were found, and two occupations were indicated (Miller 1964).

In the following year, 1957, only one visit to a site in the immediate area is recorded. An unidentified (on the State Site Card) SIRBS party apparently traveled to site 39P0206.

In 1958 and 1959, USD parties under the direction of Wesley R. Hurt, Jr., conducted extensive excavations at the Four Bear site (39DW2). Efforts from the two seasons accomplished a trench which cut through the fortification ditch and midden heaps and four lodge depressions, one of which was completely excavated (Hurt et al. 1962:v). Fifty-seven burials were also excavated from a separate burial ground (Hurt et al. 1962:v). A single occupation was identified at the site (Hurt et al. 1962:89).

Two other SIRBS investigations were accomplished near the project area. In 1962, William M. Bass evaluated human osteological materials from sites 39P07 and 39P0207 (the Second-Hand site). In the following year, 1963, Oscar L. Mallory visited site 39DW254.

In regard to SIRBS projects, Ann Johnson (1984/85) has provided an analytical report of materials excavated or collected by SIRBS crews.

No archeological work is recorded near the project area for the period 1964-1977. In 1978, however, three small-scale in-house investigations were conducted by the Corps. Rebecca J. Boyd examined the Three Horse site (39DW35)(same as 39DW26) (Boyd 1979); and Keith G. Ryder examined approximately 1.3 acres for a pipeline easement in the SE $\frac{1}{4}$, SE $\frac{1}{4}$ of Section 34, T13N, R31E, and about 7 acres in two picnic facility locations in the SE $\frac{1}{4}$ of Section 1, T12N, R31E (in the Forest City Recreation Area)(Ryder 1978a, 1978b).

In 1979, the Division of Archeological Research, Department of Anthropology, University of Nebraska-Lincoln (UNL), conducted a large-scale survey of the Corps lands on the east bank of the Oahe Reservoir, in South Dakota (Falk et al. 1986). In the same year, UNL also carried out a cultural resources investigation of the Three Horse site (39DW35) (Falk and Pepperl 1980).

In 1980, Timothy R. Nowak, then South Dakota Area Archeologist for the Corps, salvaged several burials from the Corpus Christi Catholic Cemetery, inundated just south of the Forest City Recreation Area (Owens 1980). Subsequent investigations in the area occurred in 1982 when Nowak conducted an in-house archeological survey for the Corps of about 20 acres in the Forest City Recreation Area, located in the SW $\frac{1}{4}$ of

Section 1 and the SE $\frac{1}{4}$ of Section 2, T12N, R31E (Owens 1982). Also, the Archeology Laboratory of Augustana College (AL) accomplished small-scale excavations at site 39P030, located in the West Whitlocks Recreation Area (Winham and Lueck 1983).

In 1983, working independently, Karen Nitzschke recorded site 39DW52 (State Site Files).

In the period 1984-1986, five small-scale and two large-scale investigations of areas located within or near the current project boundaries were conducted. The small-scale projects are listed below.

1) In 1984, Timothy R. Nowak examined site 39DW18 for the Corps (Henderson 1984).

2) In 1985, Thomas W. Haberman surveyed much of 39DW18 for the South Dakota Department of Transportation (DOT) (Haberman 1985).

3) In 1986, Haberman surveyed the DOT Highway 212 Project, recording four new sites (39DW53-39DW56), and examined small parts of the project area in Sections 28 and 34, T13N, R31E (Haberman 1986).

4) Also in 1986, Nowak analyzed a human skull which outwashed near the mouth of Buck Creek in the project area (Nowak 1986).

5) Finally, in 1986 Thomas F. Messerli conducted a survey for the Bureau of Indian Affairs of 320 acres which lie about 1 $\frac{1}{4}$ miles west of the project area. Messerli recorded three new sites, 39DW60-39DW62 (Messerli 1986).

The two large-scale archeological investigations undertaken during this period were a 1985-1986 survey by the Archeology Laboratory of Augustana College involving Corps lands in Dewey County which are situated about 3-6 $\frac{1}{2}$ miles north of the current project area (Winham and Lueck 1987), and a 1986 survey by Larson-Tibesar Associates of Corps lands immediately north of the project area, in Dewey and Corson counties (Sanders 1988).

In considering the adequacy of past work in the project domain, it should be noted that the majority of the newly recorded sites lie above the area most intensively examined by the SIRBS. The SIRBS work focused on sites at and below the projected high flood pool level, although four sites above the flood pool level - 39DW14, 39DW18, 39DW213 and 39DW215 - were recorded. This focus was due primarily to limited time and money. The 1948 and 1949 field seasons were virtually lost because of inadequate funding (Wedel 1953a:3; 1953b:67). The SIRBS work focused on

large, well-preserved and well-represented sites, which are generally associated with relatively late groups who lived in fixed villages (Lehmer 1971:61; Wood 1974:5). More obscure sites with sparse remains--prehistoric short term occupation sites and historic Reservation period and early settlement sites--were recorded in a more cursory manner, if at all.

The problem with inadequate funding is sometimes reflected in the lack of completed and/or published final reports for major excavations. This circumstance does not apply to excavations in the current project area. According to Lehmer (1971), major excavations were conducted at three sites located near the current project area and completed, final reports are available for all three sites. These sites include the Four Bear site (39DW2) (Hurt et al. 1962), the Swan Creek site (39WW7) (Hurt 1957) and the Hosterman site (39P07/39P05) (Miller 1964).

In light of the above comments, it may be useful to list several synthetic works pertinent to the region. These are Lehmer's (1971) Middle Missouri Archeology; Memoir 13 of Plains Anthropologist, edited by Wood (1977); Ceramic Classification in the Middle Missouri Subarea of the Plains by C. Johnson (1980); Anthropology on the Great Plains, edited by Wood and Liberty (1980); Missouri National Recreational River: Native American Cultural Resources by Ludwickson et al. (1981); and Memoir 17 of Plains Anthropologist, edited by Jantz and Ubelaker (1981). Reviews of several of these works are also available by Wedel (1973), Howard (1981) and Smith (1982).

The following chapter provides a brief overview of the prehistory and history of the project area. The descriptions given for each period are provided as generalized 'markers' rather than as a complete inventory of the factors used in defining a cultural period.

The Middle Missouri subarea has long been a focal point for human occupation and exploitation of the Northern Plains, providing a major, diverse resource base and transportation route along the Missouri River valley. Identified archeological sites in the subarea represent six major, often overlapping, periods: 1) the Paleoindian period (10,000 - 6000 B.C.), 2) the Plains Archaic or Foraging period (6000 - 0 B.C.), 3) the Plains Woodland period (A.D. 1 - 900), 4) the Plains Village period (A.D. 900 - 1862), 5) the Early Historic period (A.D. 1700 - 1860), and 6) the Late Historic period (A.D. 1860 - present).

Paleoindian Period (10,000 - 6000 B.C.)

Knowledge of the Paleoindian period is derived primarily from kill/butchering sites and small ephemeral encampments scattered throughout the High Plains where the implements of nomadic hunters have been found in association with the bones of mammoth and extinct forms of bison. Technologically, the period is characterized and partially defined by its most representative artifacts, the fluted and unfluted lanceolate projectile points and knife forms. The variability in point types and the wide distribution over the Plains suggest a highly mobile lifestyle (Wormington 1957; Irwin and Wormington 1970; Irwin-Williams et al. 1973; Frison 1978).

This period is, as yet, very poorly represented in the Middle Missouri subarea with the exception of the Walth Bay (39WW203) and Travis 2 (39WW15) sites located near Mobridge, both of which contained Agate Basin-like points (Ahler et al. 1974; Ahler et al. 1977), and the Moe site (32MN101), located in North Dakota, which contained Clovis points (Schneider 1975). It was previously thought that the Medicine Crow site (39BF2), located near Ft. Thompson, contained a Paleoindian component (Irving n.d.), but recent work with the assemblage indicates that its occupation probably did not begin until the Early Plains Archaic period (Ahler 1980).

Although the paucity of such sites suggests limited utilization of the Middle Missouri Trench by Paleoindian groups, it is also possible that many of these very early sites were destroyed or deeply buried during the formation of the Missouri River (Brakenridge and McCready

1988:452). To date, the most completely investigated Paleoindian site in South Dakota is the Lange/Ferguson site (39SH33), a Clovis-age mammoth butchering locale in the White River Badlands (Hannus 1985).

Plains Archaic Period (6000 - 0 B.C.)

The Plains Archaic or Foraging period represents a nomadic, broad-spectrum foraging adaptation to the Plains, which is probably a readjustment of the Paleoindian lifeway resulting from the extinction of many species of Pleistocene megafauna and the changing Plains environment which required a radical shift in subsistence practices. These subsistence practices appear to include generalized resource exploitation based on both large and small game hunting and an apparent increase on the reliance of plant resources, with a shift away from specialized big game hunting. Technologically, there appears to be a related shift to more regionally restricted patterns of tool manufacture, evidenced by the appearance of many different styles of notched and stemmed projectile points.

The few Archaic sites known from the Middle Missouri subarea were deeply buried, a condition which may explain the relative scarcity of sites of this period when compared to later periods, although it is assumed that the population density during later periods was also much larger than during the Archaic. Early Archaic components are represented at Travis 2 and Medicine Crow by transitional lanceolate point varieties (Ahler et al. 1977; Ahler 1980), while later Middle Archaic McKean/Hanna types are found at Walth Bay and Medicine Crow as well as at the McBride Mounds site (39BF219) near Ft. Thompson (Ahler et al. 1974; Irving 1958; Neuman 1964).

The Late Plains Archaic evolves on the Northern Plains with manifestations of the Pelican Lake point complex replacing McKean. No well defined Pelican Lake sites have as yet been dated in South Dakota, although the Pelican Lake Corner-Notched point type is found frequently in surface collections in the Black Hills (Haug 1976) and in outwashed cultural deposits in the White River Badlands (Hannus et al. 1983; Hannus et al. 1984).

Three Archaic sites have been identified in the Indian Creek Recreation Area near Mobridge on the east bank of Lake Oahe (Winham and

Lueck 1983). One of these sites, 39WW42, was dated to 3230±120 B.P. and appears to be related to the Pelican Lake point complex.

Plains Woodland Period (A.D. 1 - 900)

Sites assignable to the Plains Woodland period, the third major prehistoric period, are rather common in the Middle Missouri subarea. Known sites include both mound (tumuli) and habitation (semipermanent camp) locations. The Plains Woodland tradition is usually viewed as a time of innovation during which many new technological, economic, and social elements make their appearance, probably diffusing into the subarea from the Eastern Woodlands. Subsistence patterns are similar to those of the preceding Plains Archaic tradition, although a high dependence on bison hunting is now apparent and suggests the return to a more specialized hunting pattern. Incipient horticulture may also have been a component of Plains Woodland subsistence, although current evidence is inconclusive. Other innovations of importance include ceramics, the first documented use of semipermanent dwellings (i.e., Hoffman 1968), the bow and arrow, and mortuary ceremonialism as evidenced by elaborate burial mounds. All of these factors suggest a more complex, stable and sedentary lifeway than was present during the preceding periods.

The Woodland period manifestation in the Middle Missouri subarea is primarily represented by what has been classified as the Sonota complex (Neuman 1975), a blending of Plains Archaic tradition traits associated with bison hunting specialization, as reflected in the Besant point types, and the diffused characteristics of the Eastern Woodland tradition (Nowak 1981). The Besant point apparently evolves from the earlier Pelican Lake point complex (cf. Kehoe 1974). The Besant point is recognized by the characteristic atlatl dart point configuration, having shallow notches and rounded shoulders; the basic type is known as Besant Side-Notched. With the technological transition from atlatl to arrow between A.D. 420 and A.D. 750, the Samantha Side-Notched, the smaller corresponding arrow point of the Besant technocomplex, replaces the Besant Side-Notched (Reeves 1970:89, 90).

Haberman (1979) has reported a small, temporary aceramic occupation site (39ST80) assignable to the Sonota complex which yielded two Besant-

like points. The site is situated on the uplands at the edge of the Missouri breaks about 48 miles south of the project area.

Plains Village Period (A.D. 900 - 1862)

The Plains Village period, in terms of the number of sites known, is the predominant cultural phenomenon in the Middle Missouri subarea. The period encompasses the Late Prehistoric and Early Historic time frames, and is divided by Lehmer (1971) into a number of taxonomic units. Applying Lehmer's system, the Plains Village period includes the prehistoric Middle Missouri tradition and the prehistoric and historic Coalescent tradition, which are comprised of seven variants: 1) Initial Middle Missouri (A.D. 900 - 1400); 2) Extended Middle Missouri (A.D. 1100 - 1550); 3) Terminal Middle Missouri (A.D. 1550 - 1675); 4) Initial Coalescent (A.D. 1400 - 1550); 5) Extended Coalescent (A.D. 1550 - 1675); 6) Post-Contact Coalescent (A.D. 1675 - 1780); and 7) Disorganized Coalescent (A.D. 1780 - 1862). While the major framework of Lehmer's taxonomic scheme for the Plains Village period is still useable, continuing research in the subarea makes it clear that revisions are needed, particularly in unit definition and chronology.

Plains Village tradition sites are best known as extensive earthlodge villages, both fortified and unfortified. Other, less well-known, site types include isolated earthlodges, campsites, burial grounds, and activity areas. Such sites were once common along both sides of the Missouri River throughout most of the subarea, particularly on level terraces and bottomlands. Prominent features of the tradition include semisedentary settlement and subsistence based on horticulture, hunting, particularly of bison, and gathering of wild plants. The innovations noted for the preceding Plains Woodland period (i.e., increased sedentariness, horticulture, ceramic manufacture, the bow and arrow, and substantial dwellings) all manifest themselves in more fully developed and complex forms during this period. It is evident that the overall social complexity in Native American lifeways reached its height in the subarea during the Plains Village period.

Fully developed village culture is first seen in the subarea with the emergence of the Initial Middle Missouri variant. Groups of this variant are thought to have entered the subarea from the east, ostensibly under the distant influences of Mississippian culture (Lehmer

1971; Wedel 1961). The Initial Coalescent variant arises from the next major population movement into the subarea. This migration of peoples from the Central Plains is interpreted as resulting from environmental stress, principally drought. In Lehmer's (1971) view, the product of these movements of village peoples was a "coalescence" of village lifeways into later Coalescent variant groups, resulting from culture contacts, conflicts, and exchange of ideas. This process ultimately led to the development of the historically known Arikara, Mandan, and Hidatsa village tribes.

During the Protohistoric and Early Historic time frames (ca. A.D. 1675 - 1800), the development of the Euro-American/Native American fur trade caused fundamental changes in Plains Village lifeways, as well as the lifeways of all other Northern Plains groups. The acquisition and trade of European manufactured goods became a major aspect of village economies, eventually leading to drastic alterations throughout the entire village social structure (Ewers 1954; Deetz 1965; Wood 1972, 1974). Epidemic diseases introduced into the subarea at this time also had a disastrous effect on traditional village culture, resulting in severe population reduction and extreme cultural disruption. As a result of these historical processes of change, the Plains Village period came to an end in A.D. 1862 with the amalgamation of the surviving Arikara, Mandan and Hidatsa into a single village at Like-a-Fishhook, their last traditional earthlodge settlement (Smith 1972). Two sites inundated near the project area, the Rosa site (39P03) and the Four Bear site (39DW2), are considered ancestral to the Arikara [Post-Contact Coalescent archeologically] (Hurt 1959; Hurt et al. 1962).

Early Historic Period (A.D. 1700 - 1860)

With the advent of the fur trade and the introduction of European manufactured goods and the horse, a new Native American force arose on the Northern Plains - nomadic Equestrians. These relative newcomers began to rapidly replace Plains Villagers as the dominant cultural entity in the subarea. During the early 1700s nomadic tribes began moving onto the Northern Plains from the east under the pressures of the expanding Euro-American frontier and intertribal warfare. These Plains Equestrians became historically known groups such as the Sioux, Cheyenne, Crow and Assiniboin. After 1780, as smallpox decimated the

village tribes, the mounted nomads (especially the Sioux), who were less hard hit by the epidemic, were able to dominate the Middle Missouri well into the Historic period. However, sites relating to these groups are rarely identified and few archeological locales are directly attributable to them.

Occurring along with the rise of the Plains Equestrian groups, was the development of the Euro-American/Native American fur trade, which actively operated in the Middle Missouri during most of the nineteenth century. Euro-American fur trading posts, at one time, were a common type of archeological site identified in the region. However, these sites, like all other types of sites, have suffered from dam and reservoir construction, and few intact examples exist today.

Individuals who may have been closely associated with the fur trade in and near the project domain include licensed traders located near the mouth of the Little Cheyenne River in 1830 (The Wi-Iyohi 1954 7(11):8), from 1836 to 1839, and in 1843 (The Wi-Iyohi 1967 21(2)). The American Fur Company maintained a satellite to Fort Tecumseh at the Little Cheyenne River, "...probably at the timber at its mouth...(with)...J. Holiday...the trader there in 1830..." (The Wi-Iyohi 1954 7(11):8). Other licensees who traded on the Little Cheyenne River and may have used a post there are Pratte, Choteau & Company in 1836; William Sublette in 1843; LeClerc & Garvin in 1837; and Berain & Provanche in 1838 (The Wi-Iyohi 1967). An unidentified individual has unofficially penciled in the location for a Trading Post 1832 at the same location on the 1904 Historical Atlas of South Dakota (by E. Frank Peterson) filed at the South Dakota State Historical Society. It should be noted that the 1967 article of The Wi-Iyohi cited above does not positively identify a post as having been at the mouth of the Little Cheyenne River. Mattison (1954) also does not mention such a post.

Late Historic Period (A.D. 1860 - Present)

Toward the end of the fur trade era U.S. military occupation of the Middle Missouri began. A number of Indian agency posts and forts were established along the Missouri (Athearn 1967). The purpose of the military was to subjugate and pacify the native population in order to secure the region for permanent Euro-American settlement. While not as

numerous as the fur posts, U.S. military establishments were once rather common in the region.

Military expeditions associated with the general region reflect a presence designed to first subdue or control the activities of Indian groups in order to promote the fur trade, then to protect miners headed for the gold rush in Montana and Idaho in the late nineteenth century, and, lastly, to protect frontier settlements (Athearn 1967:214-215, 268, 276). The military presence also included a chain of forts along the Missouri River and across the Dakota Territory. The army posts nearest the current project lands were just upriver and downriver from the project boundaries. The Grand River Agency (1870 to 1875) was located near the mouth of the Grand River; the Cheyenne River Agency Post II and Fort Bennett I and II (active 1870 to 1891) were all located about 5 miles below the mouth of the Cheyenne River; and Fort Sully No. 2 or New Fort Sully (1866 to 1894) was located about 13 miles below the Little Bend Recreation Area (Mattison 1954).

Fort Sully was named after General Alfred H. Sully. Sully led a military expedition in 1863 and again in 1864 along the east side of the Missouri River. The 1863 expedition was in pursuit of Santee Sioux who had fled from Minnesota in the Indian uprising which began in 1862; the 1864 expedition was an attempt to engage and defeat not only the Santee, but also the many Teton Sioux, Yanktonais, and Cheyennes involved in the uprising by that time (Robinson 1973).

Both of Sully's expeditions passed across from the project area at the Whitlocks Bay Recreation Area. In 1863, Sully's expedition arrived at the mouth of the Little Cheyenne River near Forest City, which is inundated about a mile east of the project area. The expedition subsequently proceeded up the Little Cheyenne River to Bismarck (Robinson 1973:301). In 1864, Sully's company was again in the vicinity of the mouth of the Little Cheyenne River. Captain John Fielner, a topographical engineer, was shot and killed by three Indians as he drank from the creek at the crossing of the Little Cheyenne River. Though warned not to leave the column, Fielner and two other soldiers had gone to look at Medicine Rock in the SE $\frac{1}{4}$ of Section 16, T118N, R78W, about 2 miles east of the project area. Fielner's death was the first to occur in the 1864 campaign (Robinson 1973:310). When General Sully learned of this attack he sent Captain Miner and Co. A Dakota Cavalry after the

Indians. The cavalry overtook the Indians after pursuing them for about 15 miles. Sully had the Indians decapitated and left their heads on poles on the hills nearby where they had been dispatched (Robinson 1973:310).

A number of reservations were formed to hold subjugated Indian groups (the Cheyenne River Indian Reservation borders the current study area). Reservation period archeological sites consist of the remains of Indian agencies, including structures left from military, missionary, and Bureau of Indian Affairs occupation. Structural remains such as "dugouts" and cabins once occupied by the Native American population are also present. Native American burials from the Reservation period may also be encountered, commonly occurring as multiple grave depressions.

Once the subarea had been secured by the military, Euro-American settlers began occupying the region. Early Euro-American settlement sites consist of the remains of small communities, post offices, homesteads, and farm/ranch yards. Cemeteries of this period are also present, usually as small community or family plots.

Euro-American settlement of the area began largely after the Civil War in 1868, when military posts providing protection from the Indians were reestablished (Chittick 1973:91). The areas were surveyed by the General Land Office in 1882 and 1884, for the most part. Euro-American settlement of the region was complete by the early 1900s, and land use and settlement patterns had become more or less fixed, continuing until the present day. However, abandonment has occurred in the region for several reasons. Many towns which were created along the Missouri River when it was the major route of transportation were abandoned when competitive transportation became available. Railroads were the first major competitors; these were primarily built in the period from 1878 to 1885. Extensive hard-surface highway systems have had a depressing effect on the railroads similar to the effect of the railway system on river transportation (Alley 1979).

Periodic drought periods in the area, particularly the drought of the 1930s, have contributed to a cumulative form of abandonment represented by increases in the average farm size, reversal of a trend

towards urbanization, and a major reversal in a trend of increasing population since the 1930s (Chittick 1973). The drought of the 1930s and the Great Depression were major factors behind the creation of the flood control and irrigation systems of which the large reservoirs such as Oahe are a part.

The general research aims for this project were, on the one hand, methodological and, on the other hand, analytical. The primary aim of the project was to perform a pedestrian survey to locate and record prehistoric and historic evidence of past human activity. In accomplishing that task the goal was to provide 100 percent intensive pedestrian coverage of the area, recording sufficient information to allow accurate reconstruction of survey conditions - e.g., transect spacing and ground surface visibility. This documentation was achieved in the field by maintaining detailed daily logs (see Appendix C) and annotated maps, and by completing State Site Forms (Appendix B). The initial task of locating sites in the project area was complemented by conducting background research focused on the prehistory and history of the region.

Analytically the research approach was to focus on defining site boundaries, site components/chronology, and site locational characteristics. A broad "non-site" approach to research in the study area was applied. In utilizing a "non-site" approach, the results of the archeological survey were to be incorporated with geomorphological data relating to the formation of the present landscape to present what can be termed a "landscape-oriented" assessment of the study area as opposed to a "site-oriented" assessment. A broad definition of "landscape-oriented" involves the concepts of landscape and region as the focus of study rather than the individual archeological site. In a strictly site-oriented study, a survey which located no sites would be considered at best to have produced a negative data base. Applying the broader landscape-orientation, the same survey information assumes greater importance; namely, explanations must be developed either in terms of cultural or natural processes to account for a lack of sites.

The landscape-orientation proved very appropriate for this study, particularly regarding explanations for the lack of sites. Integration of the archeological survey data with the background research, particularly the study of sites near the project area, most of which are now inundated by Lake Oahe, provided a much more complete picture of the region's prehistoric and historic occupation. In turn, the

geomorphological study provided insights into potential areas to be investigated for buried cultural resources.

Specific research questions pertaining to the project area that could potentially be addressed are many (see Buechler 1984); those that were more realistically expected to be addressed during this investigation included:

- 1) examination and delineation of areas with deeply buried and potentially early sites (pre-village) (addressed in the geomorphological discussion, pp. 7-19); and

- 2) further examination of the correlation of site types and settlement patterns with soil types and landforms (analysis presented below, pp. 189-200).

Given the recovery of more site-specific data, several less broad-based topics were also to be considered.

- 3) Further research into a number of generally defined prehistoric and historic cultural patterns in the Middle Missouri subarea. In fact, the survey recorded very few sites that could be assigned a temporal or cultural affiliation. The midsection of a Late Paleoindian point was recovered in an isolated context, but the majority of the cultural components appear to be Late Prehistoric and Plains Village (see pp. 159, 161).

- 4) Further evaluation of the Extended Middle Missouri, Extended Coalescent and Post-Contact Coalescent variants in the region. This survey did provide detailed assessments of three of the four earthlodge village sites (39DW14, 39DW18 and 39DW213) recorded, which are probably Extended Coalescent.

- 5) Obtaining additional information on site variability in the Plains Village periods. Only one Plains Village site with clearly defined earthlodge depressions was located (39DW14). Three other sites are probably earthlodge villages, based in part on previous documentation. One site, 39DW134, appears to be a smaller campsite.

- 6) Studies of lithic utilization. Data from this survey concerning lithic utilization are minimal since none of the sites exhibited large quantities of exposed material and no exotic materials were observed. Tongue River silica was the most commonly observed raw material type utilized, occurring at 16 localities (discussed below, pp. 179, 181-188). The limited data restricted the use of statistical analyses.

7) Documentation of historic site types and settlement patterns. This study is restricted to documentary sources as no definite historic sites per se were recorded. A few cairns and depressions, the latter likely to have been gravel prospecting pits, probably fall into the Historic period.

The archeological field survey began on July 10 and was completed on August 15, 1988. Prior to initiating the field survey, contacts were made with Cheyenne River Sioux Tribal Chairman, Morgan Garreau, and with Bureau of Indian Affairs, Land Operations Manager for the Cheyenne River Agency, Wayland Lilly. The Archeology Laboratory requested a continuance of previous working agreements with these groups, and no objections were made to this arrangement.

The field crew was initially comprised of Kerry Lippincott (Field Director), Edward J. Lueck and William Ranney. Following an orientation meeting at AL, the crew drove to Gettysburg and established their field base at the Sage Motel. About a week into the project Bill Ranney sprained a knee and was forced to leave, after undertaking some project research in Pierre. Ranney was replaced by Peter Froelich on July 19, 1988. Both Lueck and Froelich were absent on some days during the field phase, so occasionally the survey was conducted by a two-man team. The majority of the area was surveyed by the three-man crew.

The level of Lake Oahe at this time was very low (ca. 1601' amsl) and many of the smaller islands were accessible from the shore. A few isolated islands were visited by boat on August 10, 1988. The generally excellent surface visibility enhanced the evaluation of the project area (underlain by Pierre Shale), although shovel testing was employed in several instances to delineate site boundaries and investigate areas of less than excellent surface visibility.

All areas were inspected by means of a pedestrian transect survey. In gently rolling and flat terrain, personnel were spaced approximately 30 meters apart and walked parallel transects to each other. In more dissected and eroded areas, such as ridge systems, the surveying strategy was adapted to match the terrain, since strict adherence to parallel transects might have resulted in surveyors walking along the steep side slopes of a narrow ridge rather than along the flatter top where sites, if present, would be more likely to be located.

Transects were generally walked parallel to the reservoir, but ridges were preferentially examined by walking along the ridgetop. Conversely, steep slopes were less intensively surveyed. Where possible (in this case nearly everywhere) cutbanks were inspected; this effort

did result in the discovery of some buried cultural deposits and the delineation of several paleosols.

When sites were located the area was intensively examined for artifacts and associated features which were flagged to aid in the recording process. A Brunton compass and metric tape were used to produce scaled site maps, and all sites were photographed. When a Corps or other boundary marker was present nearby, the map was tied to it; otherwise, temporary datum points were used. The temporary datum points, consisting of long nails wrapped with flagging tape, were left at all sites located on Corps land. When features were present, they were sometimes used as datum points (e.g., centers of cairns). Artifact collection was limited to diagnostic items (pottery, projectile points, scrapers); some other items were collected at the discretion of the field director.

As described in Chapter 3, a reconnaissance level geomorphological evaluation of the project area was undertaken between October 22 and 25, 1988. The geomorphologist, Robert Brakenridge, was accompanied by archeologist Peter Winham.

Summary of Survey Results

This survey resulted in the recording of 18 new sites and the relocation of 6 previously recorded sites (Figure 9). Thirty-three isolated finds were also recorded, including four projectile points which were assigned site numbers in accordance with SDARC procedures.

The site inventory which follows describes these sites under the types listed in Table 8.

Table 8. Sites Types Recorded In and Near the Dewey County Survey Area.

SITE TYPE	SITES IN PROJECT AREA	SITES OUTSIDE PROJECT AREA
Earthlodge villages	3	1
Artifact scatters	6	0
Depression	0	1
Cairns (includes cairns associated with depressions, gravel prospecting pits and artifact scatters)	11	1
Stone circle and cairn	0	1
TOTALS	20	4

Sites Identified by the Literature Search but not Relocated
During the Survey

Only one site - Swift Bird Cemetery - identified during the background literature search as being within the project area was not relocated during the field survey. This site apparently was an extensive cemetery. Today the location is barren Pierre Shale. It is likely that the interments were removed by the Corps when the reservoir was constructed, and that the area has since been heavily eroded.

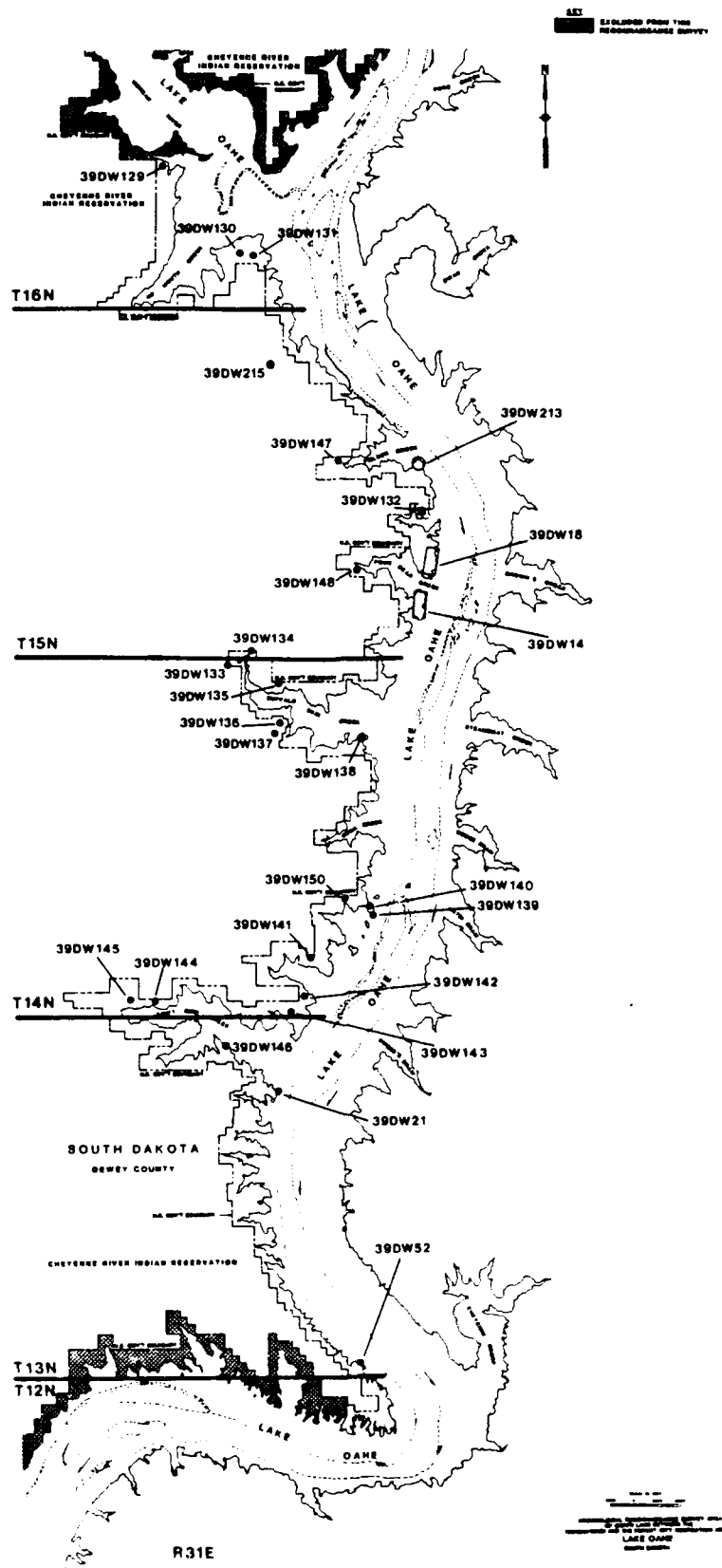


Figure 9. Detailed map of the Dewey County survey area, showing township and range and sites recorded.

Two archeological sites, 39DW237 and 39DW238, are also shown within the project area on some maps, but the site forms for these localities (provided in Appendix B) clearly show that they would be eroded away and inundated today.

New Sites and Previously Recorded Sites Identified During the Field Survey

The sites located, including both newly recorded sites and previously recorded sites, are inventoried below. The inventory format is as follows. All sites are presented in numerical order by site type. Descriptive information and recommendations are provided for each site. These data are followed by a site map and site photographs. Locational data and other information not specifically required in the main text are given on the official South Dakota State Site Forms in Appendix B.

The data categories collected in the field which are listed solely on the State site forms are: legal location; location on aerial photos and boating and recreation maps; and access to site. Data categories which are described only in the site descriptions in the main text include slope; soil; research potential; and subsurface evaluation (based on exposures, shovel testing/coring, and topography). The following data categories are dealt with in both the State site forms and the site descriptions in the following section, but are considered in greatest detail in the latter: site owner; type of resource/component; site description; site size; features present; scale plan map; terrain; vegetation; nearest water; site condition/impacts; assemblage description; and National Register evaluation.

The site maps accompanying the site forms are generally self-explanatory. Where additional information is required to interpret the site map, it is listed under the "Data Plotted on Site Map" category of the site data page.

Site boundaries are sometimes defined by a solid or dashed line which encloses the features/cultural material noted on the survey. In other cases, just the specific information on cultural features and associated materials is presented, without imposing such an "interpretive" boundary to the site.

Explanation of Site Inventory Data Categories

Site number: 39DW-- Site name: (If given)

County: Dewey State: South Dakota Site map: Figure

Property owner(s) and address(es): Generally the owner is the U.S. Army Corps of Engineers, Omaha, Nebraska, but a few sites were located on private land en route to Corps land.

Tenant and address: In every case this is unknown; therefore, this category is not listed on each site data page.

Site type: A simple description/site type category is given. More details of the site are provided in the information below and on the State site form in Appendix B.

A site is defined here on the basis of spatial association of material/features and/or some topographic linking of components. Proof that there is, indeed, any direct association between the individual given components of a site must await further evaluation.

For previously recorded sites a combination of the total information available for the site is presented.

Component(s): These are generally based on diagnostic material (projectile points, ceramics) and feature types (concrete foundations). Some features - notably depressions and cairns - might be prehistoric, historic or recent. The following definitions are applied here: prehistoric is defined as essentially pre-1800; historic is defined as being post-A.D. 1800 and pre-A.D. 1935; and recent is defined as post-A.D. 1935. In this study the following feature types (as they are defined in this report) are considered prehistoric: rock cairns and artifact scatters (unless containing items clearly of Euro-American manufacture). Rock cairns are presumed to be prehistoric, or important (significant), unless there are good reasons to believe that they are piles of field stones (historic). The authors' observations of the amount of sodding around many piles of field stones in South Dakota and North Dakota suggest that the degree of sodding is too speculative an indicator to effectively determine whether a group of rocks/cairn is historic or prehistoric (at least when based on surface observations alone or a shovel test). Groups of rocks on a steep slope, in shale, within allotment markers, are uncharacteristic of prehistoric cairns. Groups of rocks in a wash are also presumably uncharacteristic of

prehistoric cairns. The spelling out of letters or initials, particularly when they are similar to the initials of the landowners, indicates a historic feature. These examples illustrate the kind of information utilized in making what must always be a judgment call for historic cairns/piles of field stone/groups of rocks.

Direct evidence for the age of all features is lacking on such a survey and these assumptions must be made to avoid repetitious discussion about the nature of the site.

For previously recorded sites components are listed if previously recorded, even if they were not noted during the 1988 survey.

Elevation (m): One figure is given as the average for the whole site area. In some cases variation of several meters can occur.

Topographic position: Local topography is given. See USGS maps in the appendix for the regional perspective.

Slope: Flat (0°); gentle (0-2°); moderate (2-6°); fairly steep (6-15°); or steep (15-40°).

Site size: Given in hectares (1 ha = 10,000 m²) or dimensions. The site area is only a figure for the area encompassing all the cultural material/features presently recorded as making up that site. It is a general measure of size and cannot, from a surface survey, relate to any clearly stated definition of a site area because there are too many unknowns.

Soil, strata and depth: For a description of the soil type refer to Tables 18 and 22. In this category the depth of an occupation layer is indicated. This can be based on data from profiles, from feature types or from the general depth of soil in the area. It does not include (unless stated) features cut through the living surface - such as cache pits or depressions.

Vegetation: Vegetation in the site area is noted.

Ground surface visibility(%): This is an approximate figure indicative of the ability to locate cultural material on the site's surface. Generally 20 percent or greater visibility indicates there was good potential for locating surface artifacts. Less than 20 percent visibility suggests ground cover could obscure surface materials, although sporadic eroded areas, animal burrows and trails might be present.

Nearest water: This refers to the nearest water source shown on the USGS quadrangle maps, unless specified otherwise. The name or type of water source is also given. Some USGS quadrangle maps do not show the location of the drainage channels under the reservoir areas, and in a few cases the distance to nearest water has been left as indeterminate for this reason.

Site condition - impacts: Types of impact are self-explanatory. The degree of impact is estimated.

Surface collections (by whom and when): The Archeology Laboratory, Augustana College is abbreviated 'AL.' For other abbreviations refer to "Previous Investigations."

Collected artifacts: Brief descriptions of the collected artifacts are given. Additional details and measurements are given in the artifact description portions of the Laboratory Analysis and in the appendices.

Data plotted on site map: This section is completed only if there is information on the site map that is not readily understood and to give specific measurements of plotted features. North arrows show magnetic north unless otherwise indicated. Contour intervals are in feet. USCE = U.S. Army Corps of Engineers. The distance and direction to the nearest USCE marker (from datum) are given when the marker was visible. When no marker was visible, none are referenced.

Previous investigations: Listed as follows:

AL	= Archeology Laboratory of Augustana College, Sioux Falls, SD.
SIRBS	= Smithsonian Institution, River Basin Surveys.
Nitzschke	= Karen Nitzschke, independent investigation.
SDARC	= South Dakota Archaeological Research Center.
Corps	= U.S. Army Corps of Engineers.

Location of artifacts: All artifacts collected on this project are to be curated at the South Dakota Archaeological Research Center in Rapid City. Note: This section is not included if there are no collected artifacts. For previously collected artifacts, if the site form states where the artifacts are, this information is given; however, in some cases the artifacts may have been moved elsewhere. All materials collected by the SIRBS, except faunal remains, are curated by the National Museum of Natural History, Smithsonian Institution. Faunal remains were deaccessioned to the Nebraska State Museum.

Recommendations: As stated. If sites are under no adverse impacts, generally no further work will be recommended. The rationale is that if a site is not threatened there is no immediate need for further work. Efforts should be directed at the sites known to be threatened. However, it is recognized that to forward research some of these sites may need to be evaluated in the future.

Remarks: This section is used as necessary to add to the site information provided above and to discuss the recommendations.

Testing for National Register Eligibility (purpose of): In most cases, the purpose of testing is to further document a site's areal extent, depth, components present, research potential and integrity. Sometimes areal extent, depth and integrity can be inferred to a degree from the surface survey. Occasionally, specific aspects of a site which need to be tested are defined here.

Site Inventory (by type)

A. Earthlodge Villages

Site number: 39DW14 Site name:

County: Dewey State: South Dakota Site map: Figure 10

Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha, Nebraska.

Site type: Village (unfortified).

Component(s): Plains Village tradition (Extended Coalescent variant?).

Elevation (m): 500.

Topographic position: Terrace.

Slope: Flat to moderate (0-3°, ESE).

Site size: 17.5 ha.

Soil(s), strata and depth: LwA/SbC - Ah/Bk (inceptisol) - 0-50+ cm bs.

Shovel test: None; surface manifestations and slump and cutbank exposures sufficient.

Vegetation: Short grass.

Ground surface visibility (%): 5-30.

Nearest water: 750 m. Missouri River (permanent stream).

Site condition - impacts: Shoreline erosion (moderate) and vandalism (present).

Surface collections (by whom and when): AL 1988; SIRBS 1949 (Cooper); SIRBS 1952 (Farrell).

Collected artifacts: Three rimsherds, two bodysherds, Badlands knife fragment, Bison scapula, and bone fragments (AL 1988); rimsherd, seven bodysherds, worked stone, two sandstone abrader fragments (SIRBS 1949); seven bodysherds, scraper (SIRBS 1952).

Data plotted on site map: 40 depressions, 2 datums, fence, landform and approximate beachline.

<u>Plot</u>	<u>Description</u>
1	Depression, 4.6 m diameter (Plate 2)
2	Depression, 3.9 m diameter
3	Depression, 3.7 m diameter
4	Depression, 4.0 m diameter
5	Depression, 3.0 m diameter
6	Depression, 8.6 m diameter
7	Depression, 8.8 m diameter

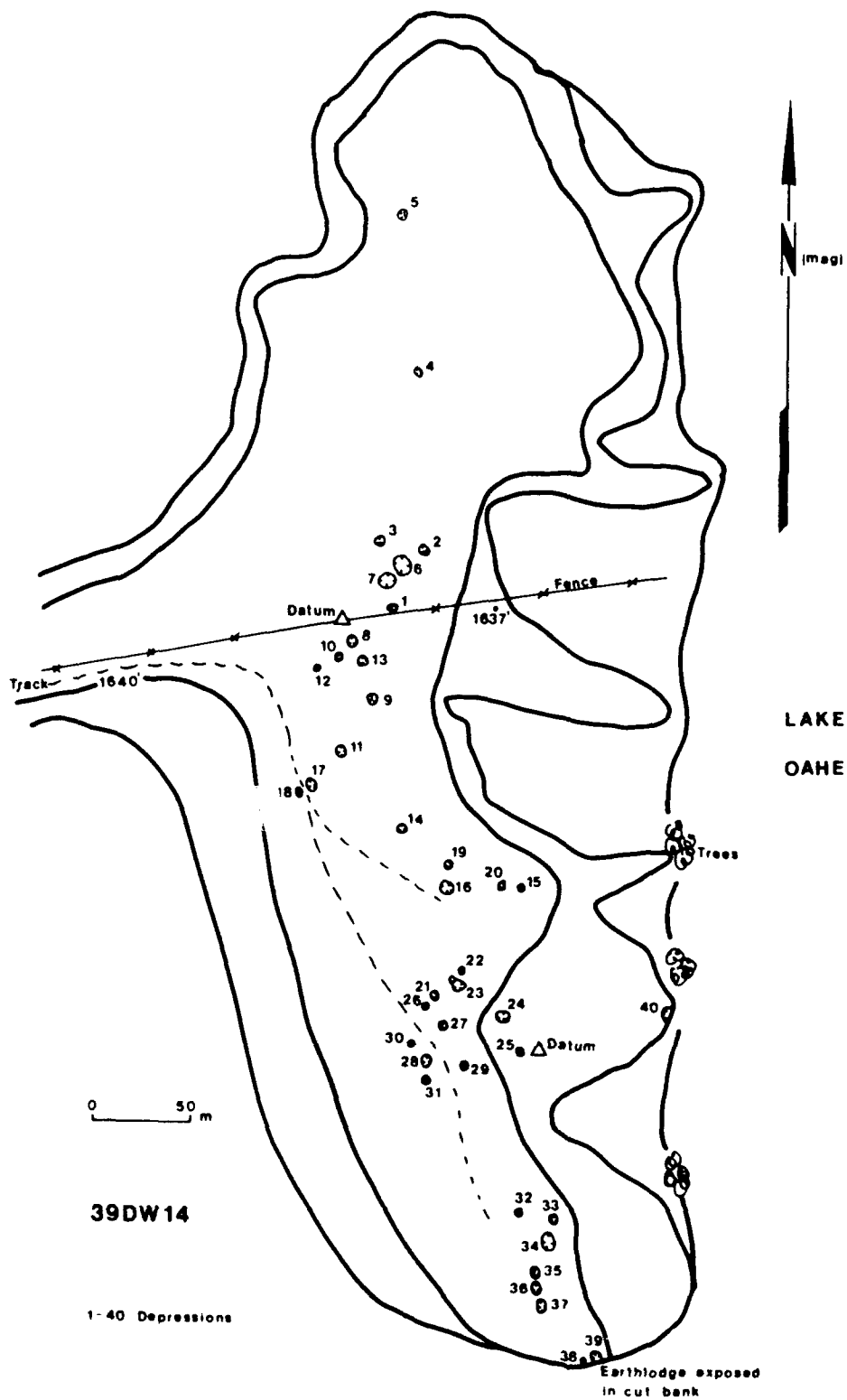


Figure 10. Plan of site 39DW14.



Plate 2. Depression No. 1, site 39DW14, facing east.

<u>Plot</u>	<u>Description</u>
8	Depression, 6.6 m diameter
9	Depression, 3.7 m diameter
10	Depression, 4.4 m diameter
11	Depression, 3.7 m diameter
12	Depression, 6.7 m diameter
13	Depression, 6.9 m diameter
14	Depression, 3.5 m diameter
15	Depression, 6.7 m diameter
16	Depression, 7.9 m diameter
17	Depression, 7.0 m diameter
18	Depression, 5.7 m diameter
19	Depression, 4.4 m diameter
20	Elongated depression, 4.6 m diameter
21	Depression, 3.5 m diameter
22	Depression, 3.2 m diameter
23	Elongated depression (weeds), 8.8 m diameter
24	Depression, 7.6 m diameter
25	Depression, 4.4 m diameter
26	Depression, 4.0 m diameter
27	Depression, 4.1 m diameter
28	Depression, 6.5 m diameter
29	Deep depression, 4.1 m diameter
30	Depression (weeds), 4.0 m diameter
31	Depression, 4.4 m diameter
32	Depression, 1.5 m diameter
33	Depression, 3.5 m diameter
34	Depression, 8.1 m diameter
35	Depression, 6.3 m diameter
36	Depression, 6.0 m diameter
37	Depression, 6.2 m diameter
38	Deep pit, 3.6 m diameter (Plate 3)
39	Depression, 8.5 m diameter (Plate 3), cross-sectioned by cutbank (Plate 4)
40	Depression, 8-9 m diameter, partly eroded by cutbank



Plate 3. View of depressions No. 38 (foreground) and No. 39 (background - partly eroded by cutbank), at site 39DW14, facing southeast.



Plate 4. Section through edge of depression No. 39, site 39DW14, facing north.

Previous investigations: SIRBS 1949 and 1952, surface collections.

Location of artifacts: SDARC (AL 1988); National Museum of Natural History, Smithsonian Institution (SIRBS 1949, 1952).

Recommendations: Immediate salvage of exposed cultural materials is recommended. The site should be tested to assess site extent and content; insufficient information exists to determine NRHP eligibility.

Remarks: This site consists of 40 depressions and a scatter of pottery, bone and lithics. The site area is 700 m N-S by 250 m E-W. The site is naturally-defined with steep slopes on all sides and only a narrow ridge on the west connects this terrace to another ridge system. Buried materials are exposed in the slump or cutbank face at two locations on the east side of the site, and in the cutbank face on the south end of the site. Talking Crow ware indicates either an Extended or Post-Contact Coalescent component. However, the many, small, widely-spaced house depressions, with little material evidence of lengthy occupation, strongly indicate an Extended Coalescent occupation.

Testing for National Register Eligibility (purpose of): Testing should be directed at assessing the extent, content and integrity of this site. These objectives can be addressed in part by the salvage of exposed cultural materials, particularly Features No. 39 and No. 40. Feature No. 38 is also threatened by cutbank erosion. Salvage of Features No. 39 and No. 40 would require controlled excavation of areas containing approximately 9-12 m². A minimum of three 1x1 m controlled excavation units, or an equivalent, should be excavated at a minimum of three other locations in the site, including the ridge peak south of the fence, the northern end of the site (near Feature No. 5) and a location in or near the materials exposed in a slump bank face on the northeast edge of the site.

Based on the recommendations of the geomorphologist, deep-testing of the soils at this site should also be accomplished. This activity could be undertaken in conjunction with the archeological testing and should be conducted to a depth which includes the buried mollisol. A minimum of two such tests, examining different areas of the terrace, are recommended.

Site number: 39DW18 Site name:
County: Dewey State: South Dakota Site map: Figure 11
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha, Nebraska.
Site type: Village.
Component(s): Plains Village tradition (Extended Coalescent variant?).
Elevation (m): 500.
Topographic position: Terrace.
Slope: Gentle (0-2°, SE).
Site size: 21 ha.
Soil(s), strata and depth: LwA - unknown - unknown.
Shovel test: Eleven tests: three positive (bodysherds), eight negative. 0-25 cm bs. Northeasternmost test: undisturbed dark brown loam with a few gravels. Testing stopped when any cultural material was located; none was collected.
Vegetation: Cultivated/pasture.
Ground surface visibility (%): 10.
Nearest water: 800 m. Missouri River (permanent stream).
Site condition - impacts: Quarry (present).
Surface collections (by whom and when): SIRBS 1949 (Fraser).
Collected artifacts: Five rimsherds, one near-rimsherd, 16 bodysherds, projectile point base, modified(?) flake, worked(?) stone, scraper-like flake, animal bone fragment, two shell fragments (SIRBS 1949).
Data plotted on site map: Eleven shovel tests, depression, datum, fence, landform and approximate beachline.
Previous investigations: SIRBS 1949, surface collections; Corps 1984; SDARC 1985.
Location of artifacts: Faunal material: University of Nebraska State Museum(?); Other items: National Museum of Natural History, Smithsonian Institution (SIRBS 1949).
Recommendations: Testing to assess site extent and content is recommended. Insufficient information exists to determine NRHP eligibility.
Remarks: This site (Plate 5) is comprised of a sparse, widely dispersed lithic, ceramic and bone fragment scatter; at least one depression is present on the southeast margin of the site. It has a diameter of 3 m and a depth of 0.5 m. The site is 700 m N-S by 300 m E-W.

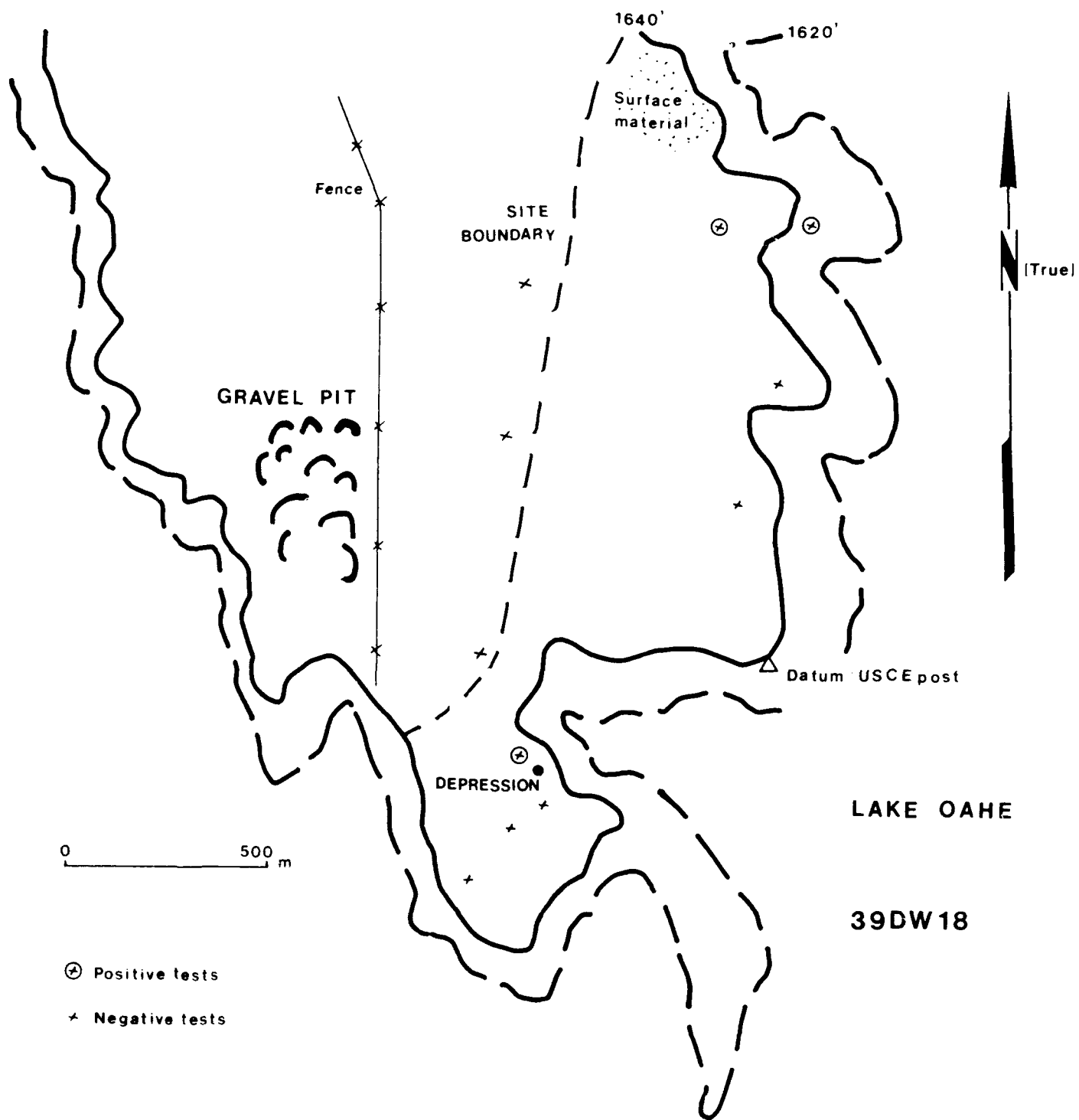


Figure 11. Plan of site 39DW18.



Plate 5. View of site 39DW18 taken from top of gravel pile, facing south-southeast.

The River Basin Survey form for this site records "house rings present in numbers, distinct, but not very deep. Wide-scattered refuse ...no ditch observed" (Fraser 1949: SIRBS site form). Such rings may have been obscured by cultivation, but the paucity of artifacts suggests this site was not occupied for an extended period.

Testing for National Register Eligibility (purpose of): Testing would be directed at determining the extent and content of the site, including the integrity of subsurface deposits. A minimum of 10, 50 cm² controlled excavation units, or an equivalent, distributed somewhat evenly over the site is recommended. Although most of the surface area has been disturbed by cultivation and gravel deposits will probably continue to be quarried, undisturbed subsurface deposits likely remain and their potential should be assessed. Undisturbed areas (surface included) are present in the northeastern part of the site (positive shovel test).

Deep-testing of the soils at the site, preferably to buried gravels, should also be undertaken. This activity could be accomplished in conjunction with the archeological testing. A minimum of two such tests, which would examine different areas of the terrace, are recommended.

Site number: 39DW213 Site name:
County: Dewey State: South Dakota Site map: Figure 12
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha, Nebraska, and private.
Site type: Village.
Component(s): Plains Village tradition (Extended Middle Missouri?/Extended Coalescent?)
Elevation (m): 512.
Topographic position: Terrace.
Slope: Gentle (0-2°).
Site size: 0.72 ha.
Soil(s), strata and depth: DsE - 7-10 cm bs (2.5Y/2d light brownish-gray paleosol, top of) - 0-25+ cm bs.
Shovel test: South of Feature 2 (negative). Slump bank exposures.
Vegetation: Short grass.
Ground surface visibility (%): 30.
Nearest water: 350 m. Missouri River (permanent stream).
Site condition - impacts: Shoreline erosion (severe) and bank slumpage (severe).
Surface collections (by whom and when): AL 1988; SIRBS 1952 (Farrell).
Collected artifacts: Three rimsherds, eight bodysherds, two retouched flakes, a primary flake, a bone awl, a Bison scapula hoe fragment, and a grinding slab (AL 1988); two rimsherds, 12 bodysherds, worked stone, a pebble, and a charred post or pole fragment (SIRBS 1952).
Data plotted on site map: Datum, Feature 1 (hearth), Feature 2 (depression), exposed buried cultural material and landform.
Previous investigations: SIRBS 1952, surface collections.
Location of artifacts: SDARC (AL 1988); National Museum of Natural History, Smithsonian Institution (SIRBS 1952).
Recommendations: Immediate salvage of exposed cultural materials is recommended. The site should be tested to assess site extent and content; insufficient information exists to determine NRHP eligibility.
Remarks: This site consists of a depression (Feature No. 2), 4.5 m in diameter and 40 cm deep; cultural materials exposed in slump bank faces (Plates 6 and 7) (especially Feature No. 1, a hearth - Figure 13); and a scatter of bone and shell (one) fragments along the beach. The site area as defined by the cultural material is 120 m N-S by 60 m E-W.

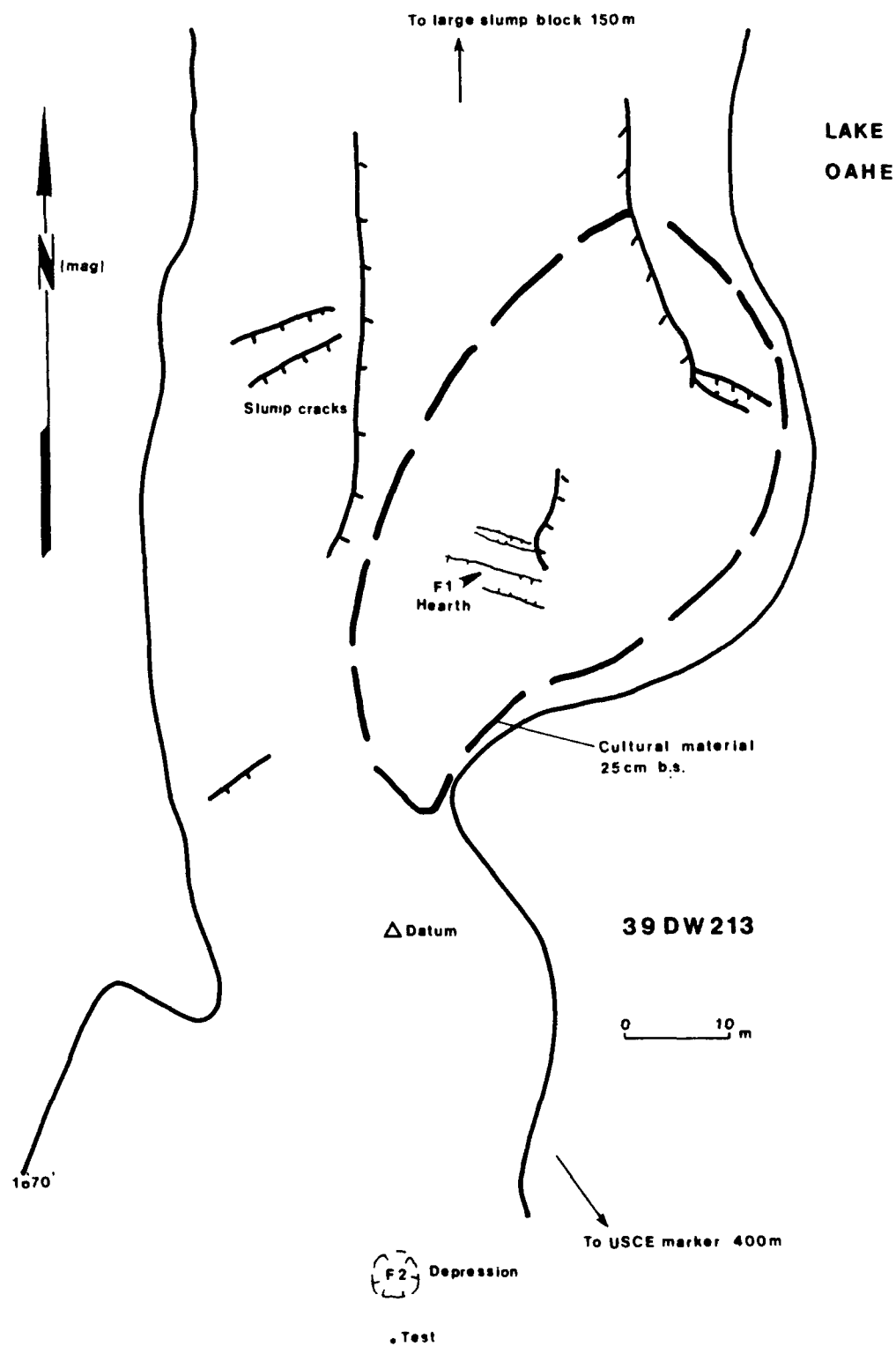


Figure 12. Plan of site 39DW213.



Plate 6. Site 39DW213, overview of slump area and Feature 1 (foreground exposure), facing northeast.



Plate 7. View of slumpage of northern portion of site 39DW213, facing north-northwest.

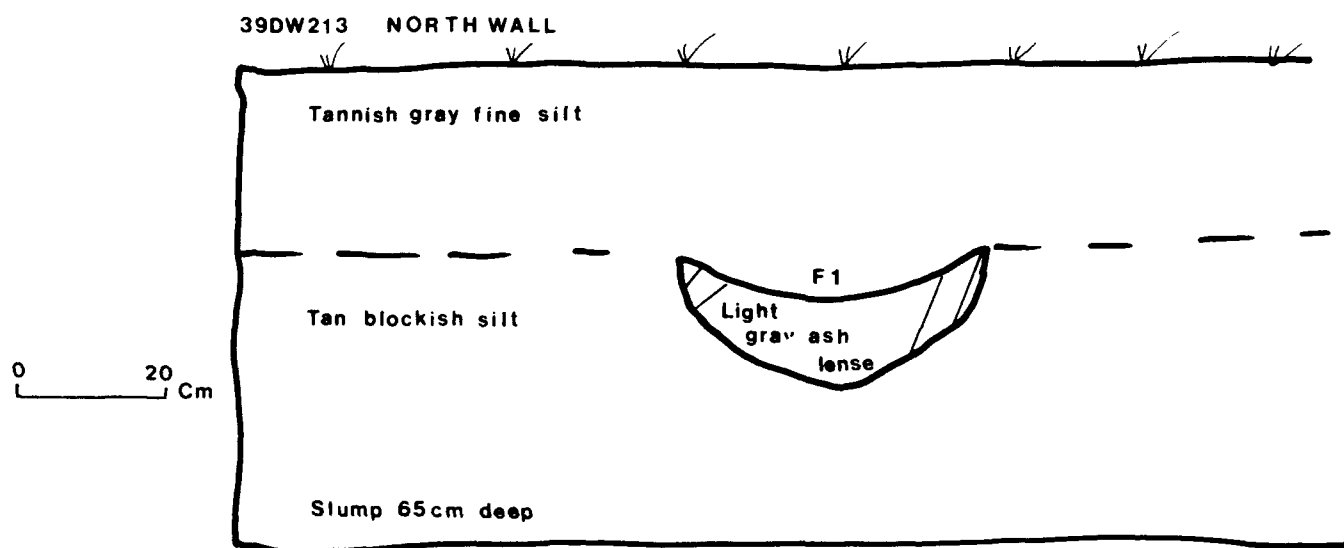


Figure 13. Profile of Feature 1, site 39DW213.

It is not possible to identify materials readily comparable to the "series of about 100 lodge rings elongated along flat surface elevated at 1695'" (SIRBS site form, August 11, 1952), although some indistinct surface undulations were noted outside the Corps property in the NW $\frac{1}{4}$, NW $\frac{1}{4}$ of Section 24. Cultivation of the area since 1952 may have obscured shallow depressions or the depressions may be natural. The lack of cultural material on the terrace within the SW $\frac{1}{4}$, SW $\frac{1}{4}$ of Section 13, despite many exposures (e.g., animal burrows), suggests that any occupation was of short duration. Also note the following: "Road blders (? W.P.A.[?]) depression dug testing for gravel" (SIRBS site form, August 11, 1952).

Talking Crow ware is present and is generally Extended Coalescent in nature. However, a single specimen (two conjoined sherds) of Riggs ware, an Extended Middle Missouri ceramic form, was also recovered.

Testing for National Register Eligibility (purpose of): A minimum of one 50 cm² controlled excavation unit, centered on Feature No. 1, should be excavated to salvage the feature. A large portion of the site area is being impacted by slumping; a minimum of eight 50 cm² controlled excavation units, or an equivalent, should be distributed throughout the slump block area and nearby areas to the south. Preferably, one should bridge the edge of Feature No. 2. The latter would be directed at determining the general nature and content of that feature. The other units would be directed at establishing the extent and content of the rest of the site. Although portions of the site have been destroyed by slumpage, those areas which remain intact possess high integrity, as evidenced by Feature No. 1. The site as a whole needs a full evaluation as much of the previously recorded site area lies on private land that was not surveyed during this project.

To assess an additional aspect of this area, deep-testing of the soils at this site should be accomplished in conjunction with the archeological testing. Preferably, the deep-testing should reach to the clay matrix glacial gravel. Two weak paleosols are present, one near the gravel-loess contact and one buried by approximately 7 cm of what could be young (this century) eolian silt. The upper paleosol is apparently associated with the artifactual materials from site 39DW213. A minimum of two excavation units, in different parts of the site, should be directed at deep-testing.

Site number: 39DW215 Site name:
County: Dewey State: South Dakota Site map: None (outside project area).
Property owner(s) and address(es): Private (Tony Rivers).
Site type: Village?
Component(s): Plains Village tradition.
Elevation (m): 562.
Topographic position: Terrace.
Slope: Flat (0°).
Site size: Unknown.
Soil(s), strata and depth: AgB - unknown - unknown.
Vegetation: Short grass.
Ground surface visibility (%): 5-30.
Nearest water: 500 m. Intermittent stream (unnamed).
Site condition - impacts: Ranching practices, ranch dwelling?
Surface collections (by whom and when): AL 1988; SIRBS 1952 (Farrell).
Collected artifacts: Transverse scraper (AL 1988); fish bone (SIRBS 1952).
Data plotted on site map: None. Site is outside project area and was recorded in passing.
Previous investigations: SIRBS 1952.
Location of artifacts: SDARC (AL 1988); University of Nebraska State Museum? (SIRBS 1952).
Recommendations: N/A - site on private land outside project area.
Remarks: Outside project area; noted in passing. River Basin Survey site form noted "about 20 earth lodge rings" (Farrell and Hoffman 1952: SIRBS site form).
Testing for National Register Eligibility (purpose of): N/A.

B. Artifact Scatters (no associated features)

Site number: 39DW21 Site name:

County: Dewey State: South Dakota Site map: None (eroded).

Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha, Nebraska.

Site type: Artifact scatter.

Component(s): Plains Village tradition; Historic Euro-American.

Elevation (m): 491 - 488 (mostly below normal operating pool level).

Topographic position: Terrace (normally inundated).

Slope: Gentle (1-2°, NE).

Site size: 0.18 ha.

Soil(s), strata and depth: SbE - outwashed - unknown.

Vegetation: None.

Ground surface visibility (%): 100.

Nearest water: 300 m. Missouri River (permanent stream).

Site condition - impacts: Reservoir erosion (severe/total); vandalism (general collecting).

Surface collections (by whom and when): AL 1988; SIRBS 1951 (Wedel); SIRBS 1952 (Farrell).

Collected artifacts: Grinding stone, shell bead (AL 1988); one rimsherd, nine bodysherds, scoria (SIRBS 1951); three bodysherds, scoria fragments (SIRBS 1952).

Data plotted on site map: None - eroded out, normally under water.

Site mostly below normal operating pool level of 1610 ft. amsl (490 m).

Previous investigations: SIRBS 1951, 1952, surface collections.

Location of artifacts: SDARC (AL 1988); National Museum of Natural History, Smithsonian Institution (SIRBS 1951, 1952).

Recommendations: Ineligible; no further work is recommended. The site is outwashed and lacks integrity. It will not yield information important in prehistory or history. The site does not meet any other National Register of Historic Places criteria for eligibility.

Remarks: This site is outwashed and consists of an extensive, moderately dense artifact scatter on the lower beach (ca. 1617' - 1608' amsl). Bone, bone fragments and lithic debitage predominate, but some Euro-American items are scattered about in the southern portion of the

site. The latter items are presumably associated with "several contemporary house basements on the southern portion of the site" recorded by Farrell and Hoffman (SIRBS site form, August 5, 1952).

Testing for National Register Eligibility (purpose of): N/A.

Site number: 39DW52 Site name:
County: Dewey State: South Dakota Site map: None (eroded).
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha, Nebraska.
Site type: Artifact scatter.
Component(s): Aboriginal.
Elevation (m): 494.
Topographic position: Terrace.
Slope: Gentle to moderate (1-3°, NE).
Site size: Undeterminable.
Soil(s), strata and depth: SbE - outwashed - unknown.
Vegetation: None.
Ground surface visibility (%): 100.
Nearest water: 50 m. Missouri River (permanent stream).
Site condition - impacts: Shoreline erosion, severe.
Surface collections (by whom and when): Nitzschke 1983.
Collected artifacts: Unknown.
Data plotted on site map: None - eroded out.
Previous investigations: Nitzschke 1983, surface collections; observation of buried materials at 18" below surface.
Location of artifacts: Unknown.
Recommendations: Ineligible; no further work is recommended. The site is outwashed and lacks integrity. It will not yield information important in prehistory or history. The site does not meet any other criteria of eligibility for nomination to the National Register of Historic Places.
Remarks: This site is now outwashed and destroyed. Karen Nitzschke, who originally identified the site, accompanied the survey crew and indicated that the site's original context was completely eroded away. The present survey located only seven bone fragments on the beach, which may or may not be associated with the site's occupation.
Testing for National Register Eligibility (purpose of): N/A.

Site number: 39DW130 Site name:
County: Dewey State: South Dakota Site map: Figure 14
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha, Nebraska.
Site type: Artifact scatter (and recent gravel prospecting pits).
Component(s): Aboriginal and A.D. 1861 -.
Elevation (m): 536.
Topographic position: Ridgetop.
Slope: Gentle (0-2°).
Site size: 3.7 ha overall. Artifact scatter 0.49 ha.
Soil(s), strata and depth: SbE - unknown - unknown (over 25 cm).
Shovel test: 0-25 cm: brown silt and small gravels.
Vegetation: Short grass.
Ground surface visibility (%): 30.
Nearest water: 1080 m. Moreau River (permanent stream).
Site condition - impacts: Disturbed by gravel prospecting pits.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Datum, lithic debitage and nine gravel prospecting pits (gravel tests), shovel test (negative), landform.

<u>Plot</u>	<u>Description</u>
1	Tongue River silica (TRS) primary flake
2	Gravel test, 3.1 m x 2.5 m x 0.40 m deep
3	Gravel test, 1.6 m x 1.5 m x 0.30 m deep
4	Gravel test, 1.7 m x 1.6 m x 0.25 m deep and TRS flake fragment
5	Gravel test, 3.0 m x 3.3 m x 0.35 m deep and gray chalcedony primary flake
6	Gravel test, 2.7 m x 3.1 m x 0.30 m deep
7	Gravel test, 2.5 m x 3.1 m x 0.45 m deep
8	Gravel test, 3.0 m x 2.8 m x 0.45 m deep
9	Gravel test, 2.4 m x 2.5 m x 0.30 m deep
10	Gravel test, 2.4 m x 2.1 m x 0.25 m deep
11	Scatter: dark red chert core, white chalcedony core fragment, gray-brown chert primary flake

Previous investigations: None.
Location of artifacts: N/A.

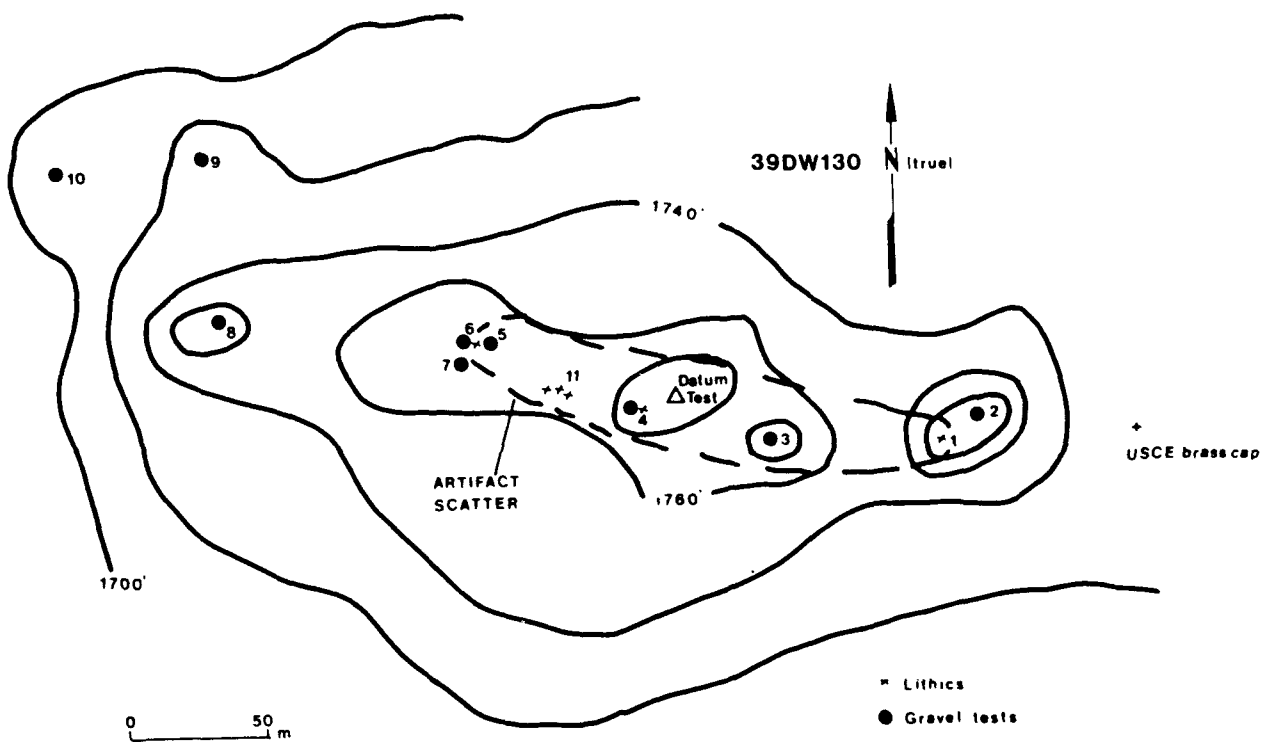


Figure 14. Plan of site 39DW130.

Recommendations: Ineligible; no further work is recommended. The site lacks integrity. It is a surface manifestation and will not yield additional information important in prehistory or history. The site does not meet any other criteria of eligibility for nomination to the National Register of Historic Places.

Remarks: This site (Plate 8) consists of a sparse, dispersed lithic scatter. A total of six lithic items were recorded (see site plan) at locations 1 (TRS primary flake), 4 (TRS flake fragment), 5 (gray chalcedony primary flake) and 11 (dark red chert core, white chalcedony core fragment and a gray-brown chert primary flake). There are also nine small depressions which are gravel prospecting pits (gravel tests). The information about the gravel test pits was supplied by Tony River's who indicated that his father dug there 60 years ago.

Testing for National Register Eligibility (purpose of): N/A.



Plate 8. Site 39DW130, facing west from datum.

Site number: 39DW131 Site name:
County: Dewey State: South Dakota Site map: Figure 15
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha,
Nebraska.
Site type: Artifact scatter.
Component(s): Aboriginal.
Elevation (m): 543.
Topographic position: Hilltop.
Slope: Flat (0°).
Site size: 0.014 ha.
Soil(s), strata and depth: SbE - topsoil - shallow, near surface.
Shovel test: 0-10 cm. 5 cm of gray silt overlying gravel.
Vegetation: Short grass.
Ground surface visibility (%): 30.
Nearest water: 1200 m. Moreau River (permanent stream).
Site condition - impacts: Largely undisturbed, but a two-track trail is
present.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Datum, 16 cultural material locations, rocks,
shovel test (negative), landform. Cultural materials consist of:
 four brown chalcedony shatter;
 brown chalcedony tertiary flake;
 brown chert retouched primary flake;
 gray chalcedony secondary flake;
 brown chalcedony secondary flake;
 two gray chert tertiary flakes;
 two brown chalcedony primary flakes;
 mineralized wood primary flake;
 two mineralized wood shatter fragments;
 purple chert primary flake;
 gray TRS core;
 gray-brown chalcedony secondary flake;
 gray-brown chalcedony primary flake; and
 gray-brown chalcedony shatter.
Previous investigations: None.
Location of artifacts: N/A.

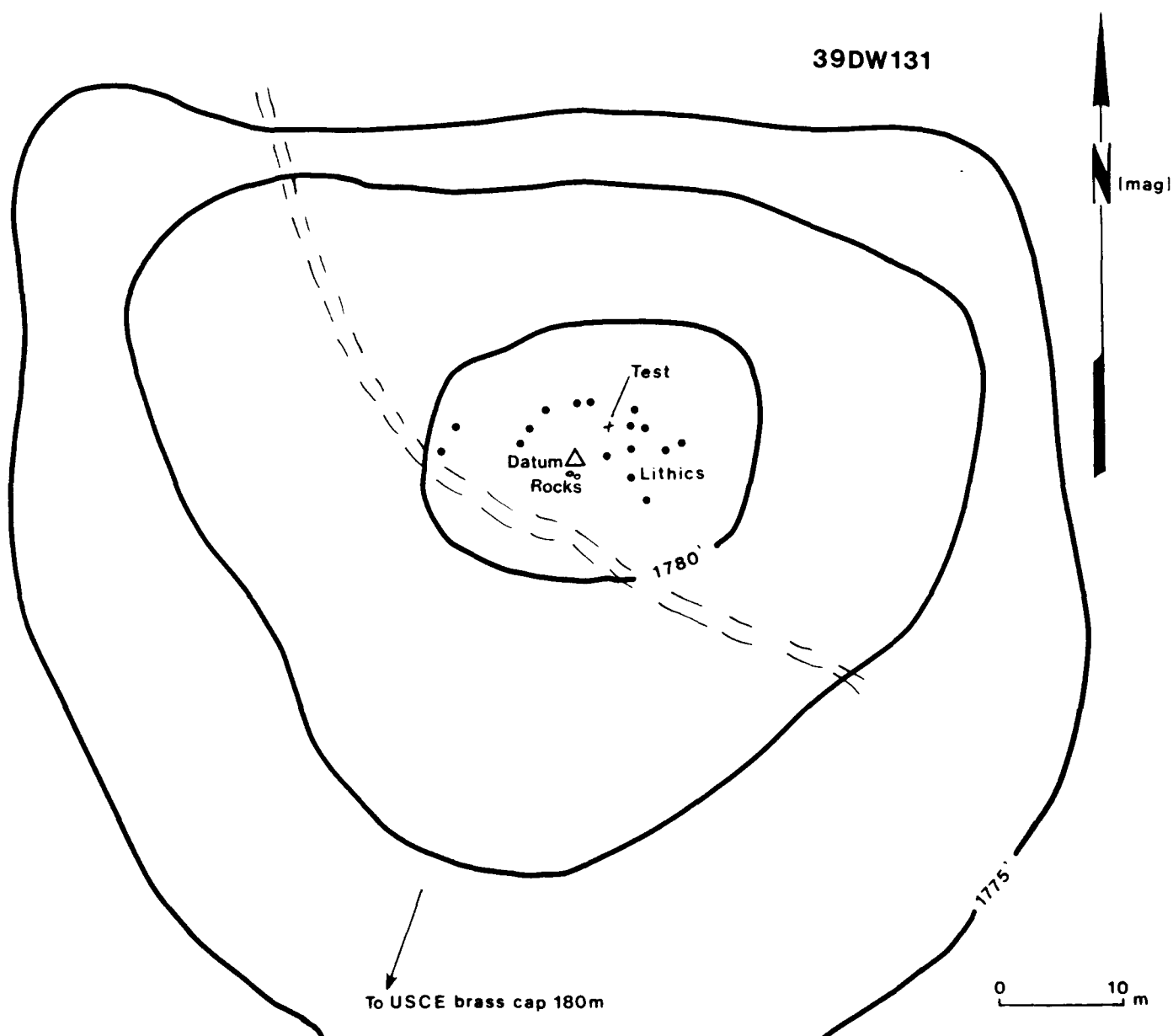


Figure 15. Plan of site 39DW131.

Recommendations: Ineligible; no further work is recommended. The site (Plate 9) lacks integrity. It is a surface manifestation and will not yield additional information important in prehistory or history. The site does not meet any other criteria of eligibility for nomination to the National Register of Historic Places.

Remarks: This site is a moderately dense lithic scatter. Twenty items were observed (see Table 17).

Testing for National Register Eligibility (purpose of): N/A.



Plate 9. Site 39DW131, facing southeast.

Site number: 39DW133 Site name:
County: Dewey State: South Dakota Site map: Figure 16
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha,
Nebraska.
Site type: Artifact scatter.
Component(s): Late Prehistoric.
Elevation (m): 506.
Topographic position: Terrace.
Slope: Flat (0°).
Site size: 0.013 ha.
Soil(s), strata and depth: Pw/SbE - topsoil - surface.
Shovel test: 0-25 cm. 20 cm of dark brown blocky clay derived from
Pierre Shale, with some small gravel on the surface.
Vegetation: Short grass.
Ground surface visibility (%): 40.
Nearest water: 70 m. Buffalo Creek (intermittent stream).
Site condition - impacts: Largely undisturbed, some slopewash apparent
and a cow path.
Surface collections (by whom and when): AL 1988.
Collected artifacts: Projectile point fragment, two biface fragments,
primary flake, retouched plate chalcedony fragment (AL 1988).
Data plotted on site map: Datum, shovel test (negative), 22 material
locations, landform, cow path. The cultural materials consist of:
 three tooth enamel fragments;
 gray quartzite biface fragment;
 purple quartzite triangular point fragment (Late Prehistoric);
 gray chert flake, bifacially worked;
 gray chert retouched flake;
 red silicified sediment core;
 four silicified sediment flake fragments;
 two silicified sediment shatter fragments;
 six fire-cracked rocks (three silicified sediment, two gray
 granite and one gray quartzite);
 plate chalcedony tertiary flake;
 plate chalcedony retouched flake;
 gray silicified sediment utilized flake;

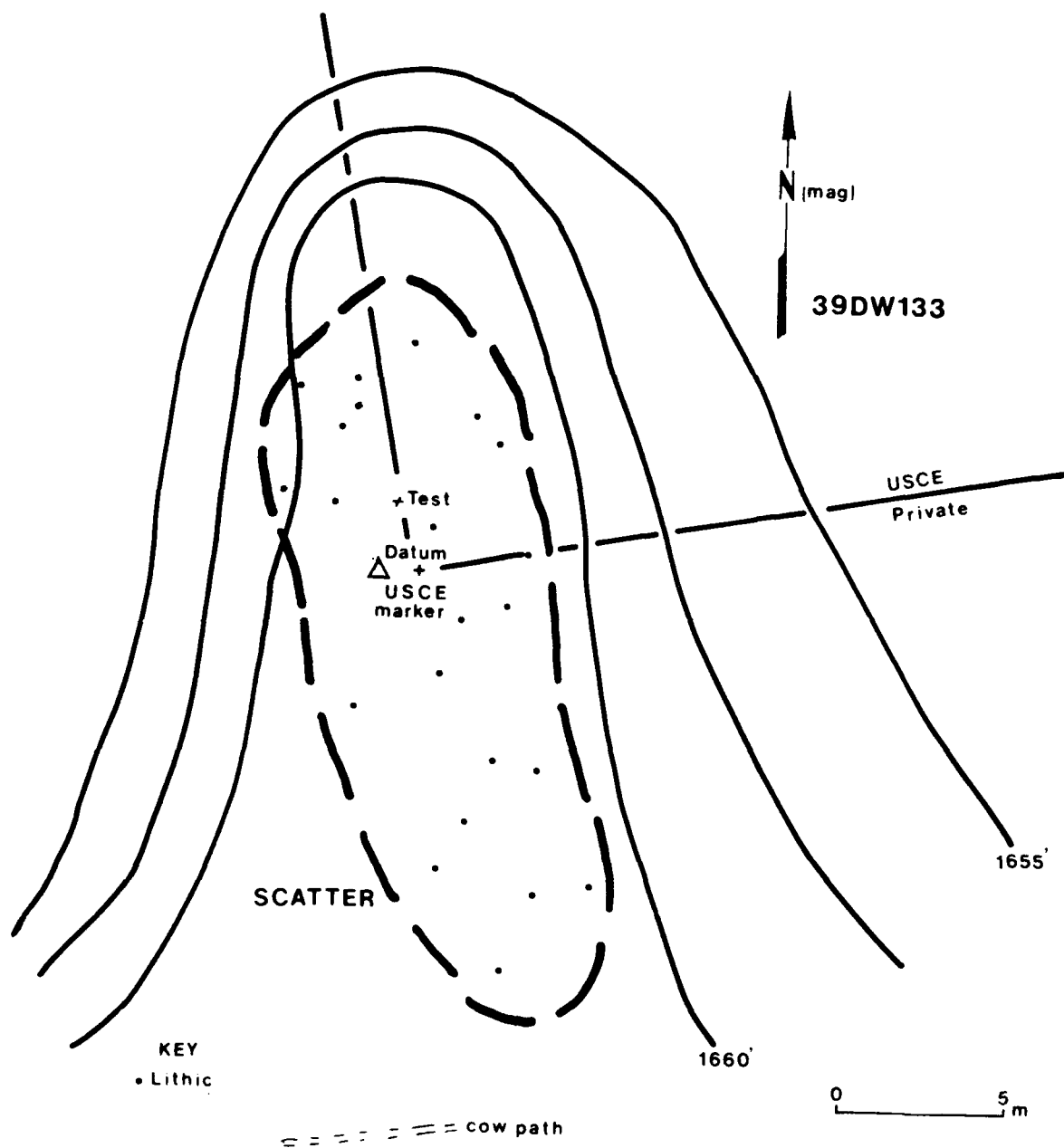


Figure 16. Plan of site 39DW133.

white chalcedony tertiary flake; and
yellow chalcedony tertiary flake.

Previous investigations: None.

Location of artifacts: SDARC.

Recommendations: Ineligible; no further work is recommended. The site (Plate 10) lacks integrity. It is a surface manifestation and will not yield additional information important in prehistory or history. The site does not meet any other criteria of eligibility for nomination to the National Register of Historic Places.

Remarks: The site consists of a moderately dense scatter of lithics and several tooth enamel fragments. Twenty-five items were observed, including a projectile point fragment, retouched pieces, fire-cracked rock and tooth enamel (see Table 17).

Testing for National Register Eligibility (purpose of): N/A.



Plate 10. Site 39DW133, facing north.

Site number: 39DW134 Site name:
County: Dewey State: South Dakota Site map: Figure 17
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha,
 Nebraska.
Site type: Artifact scatter.
Component(s): Extended Coalescent?
Elevation (m): 503.
Topographic position: Terrace.
Slope: Gentle (1°, WSW).
Site size: 0.04 ha.
Soil(s), strata and depth: Sw - topsoil - unknown.
Shovel test: 0-25 cm bs. 0-20 cm: soil with blocky clay (Pierre Shale
 derived) and concretions above Pierre Shale.
Vegetation: Short grass and cactus.
Ground surface visibility (%): 30.
Nearest water: 100 m. Intermittent stream (unnamed tributary to
 Buffalo Creek).
Site condition - impacts: Largely undisturbed but with some slopewash.
Surface collections (by whom and when): AL 1988.
Collected artifacts: Bodysherd, biface fragment (AL 1988).
Data plotted on site map: Datum, shovel test (negative), flake, three
 material concentrations, landform.

<u>Plot</u>	<u>Description</u>
1	Artifact scatter, 16.0 m SW-NE x 1.5 m NW-SE. The scatter contains: a silicified sediment core; flat granite grinding slab, 12 cm x 7 cm; nine silicified sediment shatter fragments; two silicified sediment utilized flakes; two silicified sediment tertiary flakes; basalt hammerstone; silicified sediment biface fragment; and silicified sediment primary flake.
2	Artifact scatter, 4.8 m E-W x 2.6 m N-S. The scatter contains: tooth enamel; five silicified sediment shatter fragments; two silicified sediment tertiary flakes; silicified sediment core; silicified sediment utilized flake; and an orange chert tertiary flake.

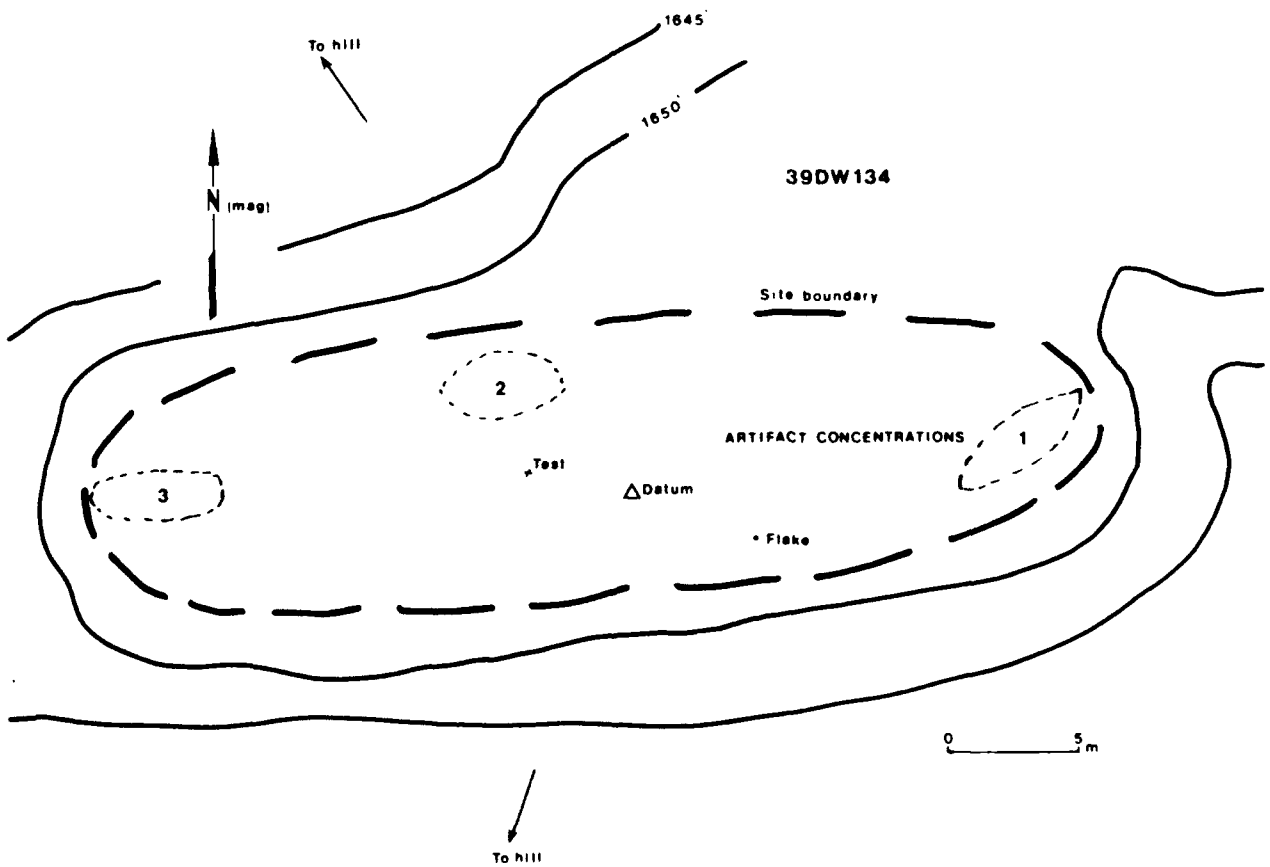


Figure 17. Plan of site 39DW134.

<u>Plot</u>	<u>Artifact</u>
3	Artifact scatter, 5.2 m E-W x 7.0 m N-S. The scatter contains: six silicified sediment shatter fragments; seven silicified sediment tertiary flakes; four silicified sediment cores; a simple stamped bodysherd; silicified sediment primary flake; and a silicified sediment bifacially retouched flake.
Flake	TRS tertiary flake

Previous investigations: None.

Location of artifacts: SDARC.

Recommendations: No further work is recommended unless the site is to be impacted. If so, test for National Register eligibility. Insufficient evidence exists to determine NRHP eligibility. The depth of soil in the shovel test, the site's apparent uncultivated state, and the presence of ceramics suggest a potential to yield information important in prehistory or history.

Remarks: This site (Plate 11) consists of a lithic and ceramic scatter, primarily concentrated in three areas in close proximity to each other (Areas 1-3). Area 1: 18 items; Area 2: 11 items; Area 3: 20 items. One isolated item was also recorded. The single bodysherd recovered would fit within Extended Coalescent ceramic types.

Testing for National Register Eligibility (purpose of): If impacts occur, excavate a minimum of one 50 cm² controlled excavation unit in each of the three concentrations of materials. The tests would evaluate site integrity and determine the nature of the apparent activity areas.



Plate 11. Site 39DW134, facing west.

C. Depression (unassigned)

Site number: 39DW132 Site name:
County: Dewey State: South Dakota Site map: Figure 18
Property owner(s) and address(es): Private (outside project area).
Site type: Depression - possible gravel prospecting pit.
Component(s): A.D. 1861 - ?
Elevation (m): 506.
Topographic position: Terrace edge.
Slope: Gentle (1°, ESE).
Site size: 0.0019 ha.
Soil(s), strata and depth: LxB - unknown - unknown.
Vegetation: Short grass.
Ground surface visibility (%): 20.
Nearest water: 1000 m. Missouri River (permanent stream).
Site condition - impacts: Undisturbed.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Datum, depression, landform.
Previous investigations: None.
Location of artifacts: N/A.
Recommendations: N/A (outside project area).
Remarks: This site (Plate 12) consists of a depression and is tentatively considered a gravel prospecting pit. It is 4.3 m N-S x 4.4 m E-W, and 0.6 m deep. It lies outside the project area on private land.
Testing for National Register Eligibility (purpose of): N/A.

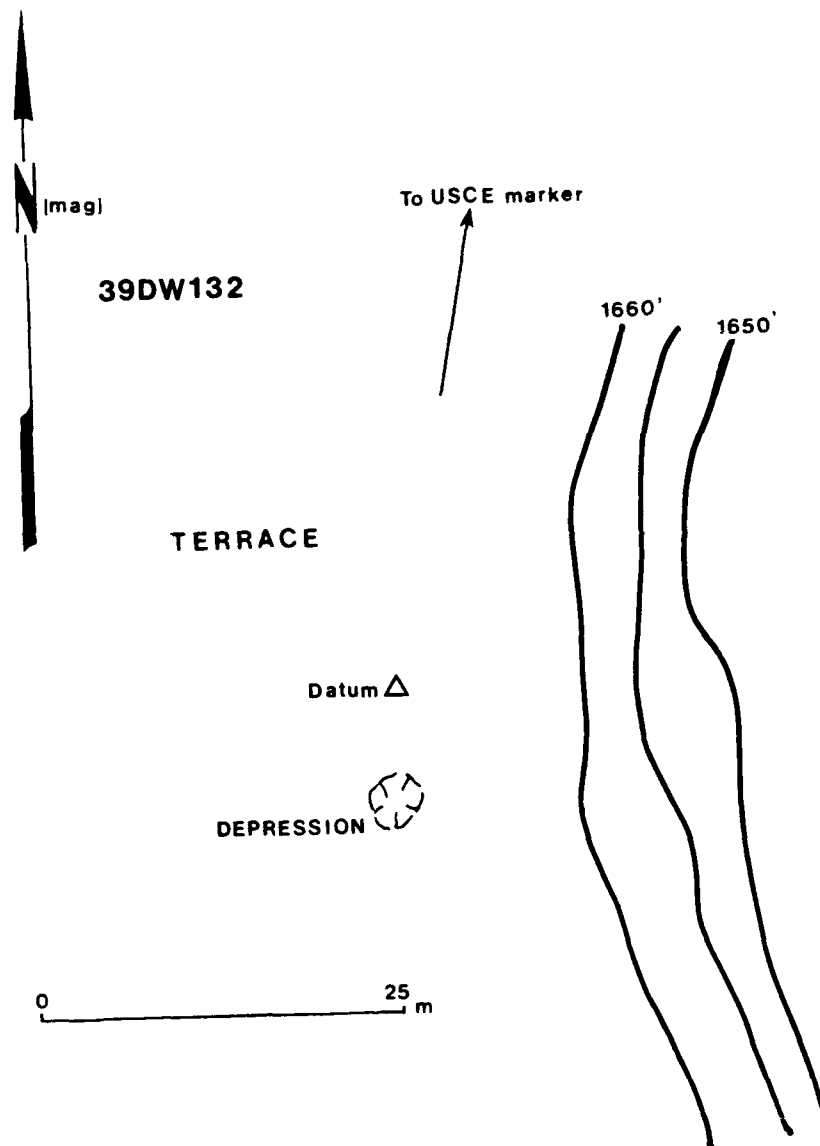


Figure 18. Plan of site 39DW132.



Plate 12. Site 39DW132, facing south.

D. Cairns

Site number: 39DW129 Site name:
County: Dewey State: South Dakota Site map: Figure 19
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha,
Nebraska.
Site type: Cairn with isolated shatter fragment.
Component(s): Aboriginal.
Elevation (m): 512.
Topographic position: Ridge crest.
Slope: Gentle (2°, ENE).
Site size: 0.00014 ha.
Soil(s), strata and depth: SbE - unknown - unknown.
Shovel test: 0-25 cm bs; fine gray silt with gravel deposit (negative).
Vegetation: Short grass.
Ground surface visibility (%): 40.
Nearest water: Distance indeterminate. Intermittent stream (unnamed).
Site condition - impacts: Undisturbed.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Datum, cairn, shovel test, shatter, landform.
Previous investigations: None.
Location of artifacts: N/A.
Recommendations: No further work is recommended unless the site is to be impacted. If so, test for NRHP eligibility. Insufficient evidence exists to determine NRHP eligibility. Cairns can be markers relating to important events or persons or they may mark burials or have some significance with regard to the care of the dead. Cairns often mark routeways and may be considered significant in a broader context.
Remarks: This site (Plate 13) consists of one stone cairn and a shatter fragment, located about 70.5 m west of the cairn on the same ridge. The cairn is comprised of 15 stones and measures 1.3 m N-S by 1.1 m E-W.
Testing for National Register Eligibility (purpose of): If impacts occur, excavate a minimum of one 50 cm² controlled excavation unit centered over the cairn. The purpose of this test is to determine the structure of the cairn and locate any cultural materials (if present), and to determine if there are any materials buried beneath the cairn.

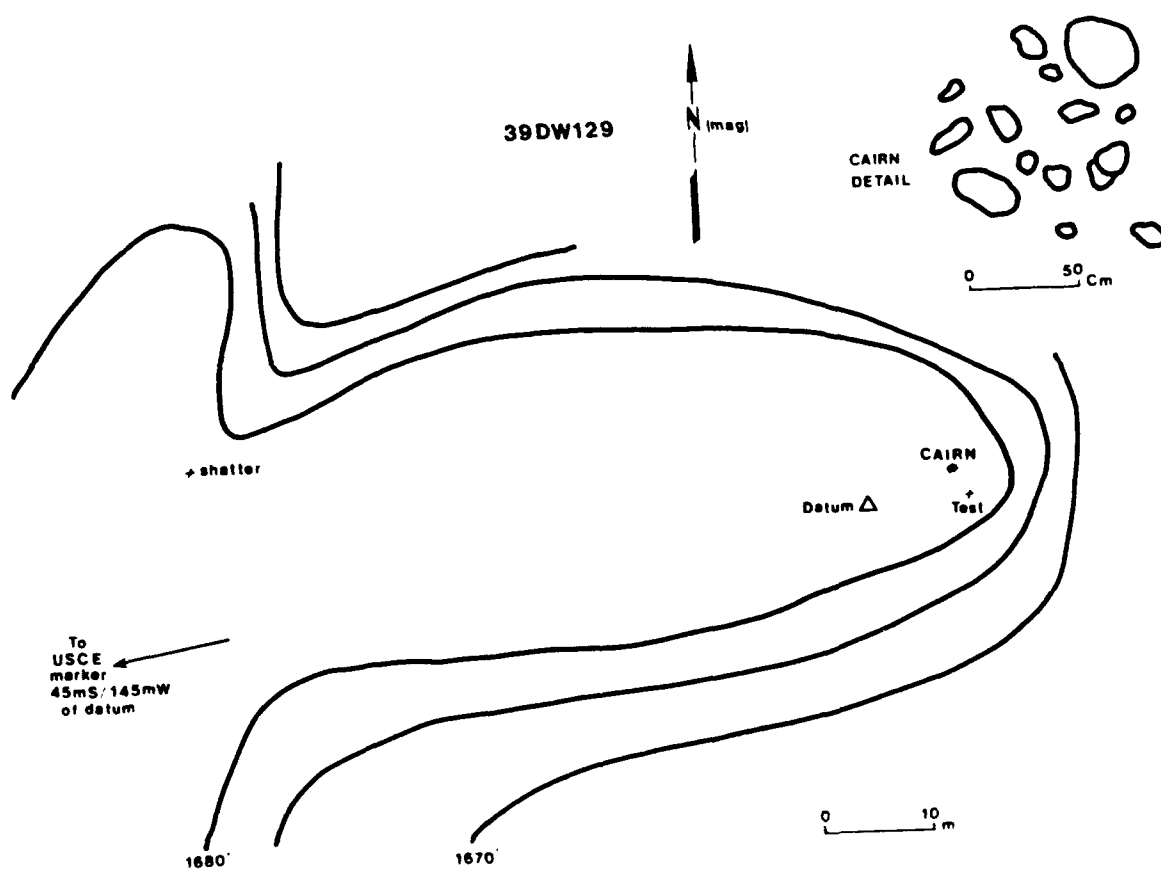


Figure 19. Plan of site 39DW129.



Plate 13. Site 39DW129, facing east.

Site number: 39DW135 Site name:
County: Dewey State: South Dakota Site map: Figure 20
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha, Nebraska.
Site type: Cairn? and artifact scatter; also recent rock piles.
Component(s): Aboriginal (cairn? and scatter) and recent (rock piles).
Elevation (m): 518.
Topographic position: Upper valley slope.
Slope: Flat (0°).
Site size: 0.08 ha.
Soil(s), strata and depth: DsE - topsoil - surface.
Shovel test: 0-10 cm. 5 cm of gray/brown silty clay overlying decomposing Pierre Shale.
Vegetation: Short grass.
Ground surface visibility (%): 60.
Nearest water: 400 m. Intermittent stream (unnamed).
Site condition - impacts: Disturbed by slopewash.
Surface collections (by whom and when): AL 1988.
Collected artifacts: Two transverse scrapers, Badlands knife fragment, two retouched flakes (AL 1988).
Data plotted on site map: Datum, two shovel tests (negative), three material locations (one around a cairn), landform.

<u>Plot</u>	<u>Description</u>
1	Scatter (ca. 1.0 m x 1.0 m) around a cairn of large (head-sized) stones: brown jasper tertiary flake; two brown chalcedony utilized flakes; gray TRS tertiary flake; brown chalcedony secondary flake, mineralized wood retouched primary flake; two brown chalcedony transverse scraper fragments; Badlands knife fragment; and two gray chert retouched flakes
2	Brown chalcedony flake fragment
3	Large anvil stone or core, ca. 60 cm x 60 cm

Previous investigations: None.
Location of artifacts: SDARC.
Recommendations: No further work is recommended unless the site is to be impacted. If so, test for National Register eligibility.
 Insufficient evidence exists to determine NRHP eligibility at this time.

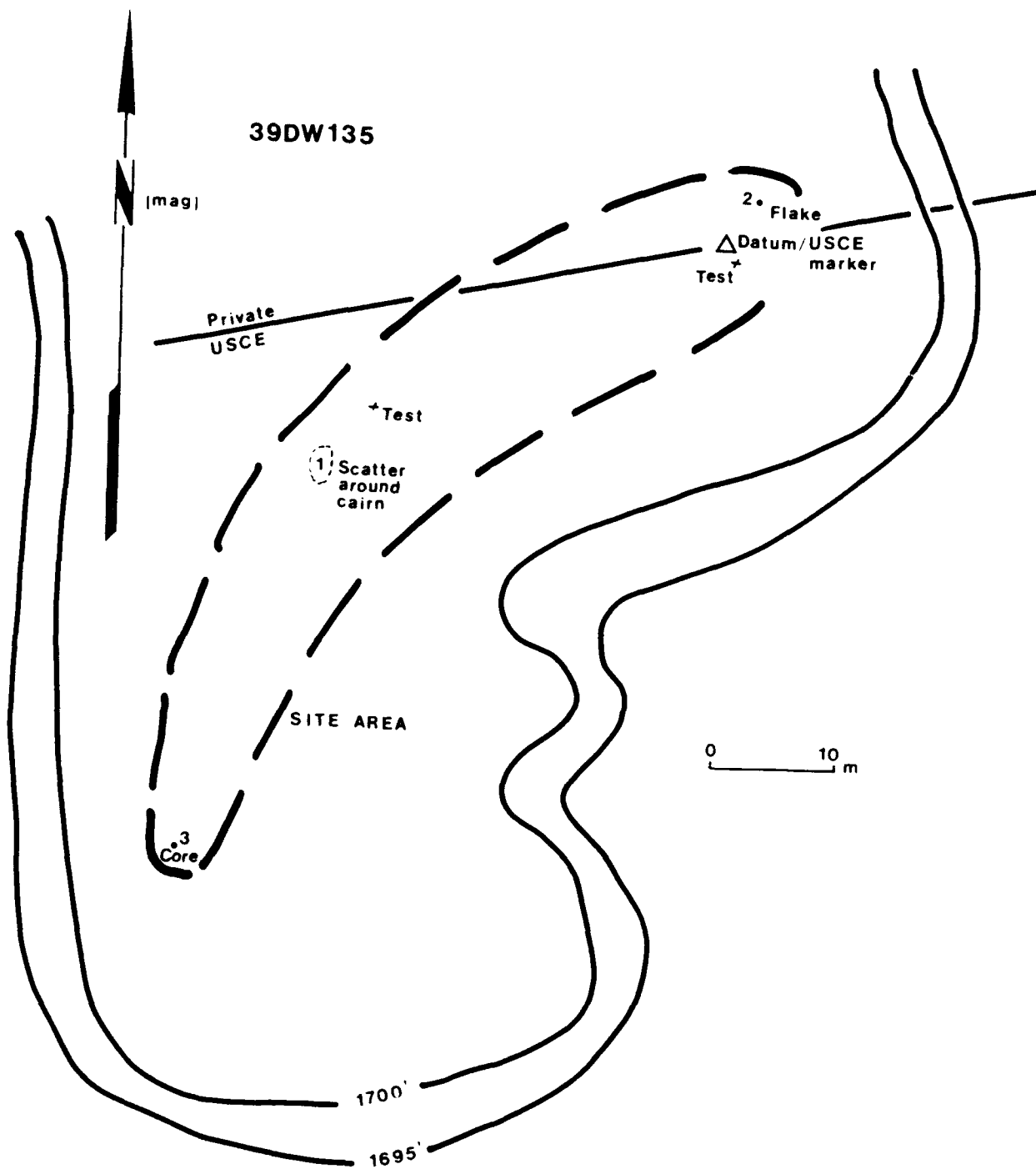


Figure 20. Plan of site 39DW135.

If the cairn proves to be associated with the site there may be buried materials providing a cultural affiliation.

Remarks: This site (Plate 14) consists of a small, moderately dense concentration (Area 1) of lithic items (mostly tools), seemingly associated with a cairn (Plate 15) (No. 1 - site map). Two isolated items, a flake fragment and a large anvil stone or core, are also present. Additional piles of rocks are present in the general area, some forming initials, VLB(?) or SLB(?). The latter are clearly recent clearance cairns or the like, probably associated with allotments. Apart from being surrounded by a scatter of artifacts, the Plot 1 cairn appears to be no different from the other, clearly recent, rock piles.

Testing for National Register Eligibility (purpose of): In the event of future impacts excavate a minimum of one 50 cm² controlled excavation unit centered over the cairn to determine the nature and construction of the cairn and its association (if any) with the artifact scatter.

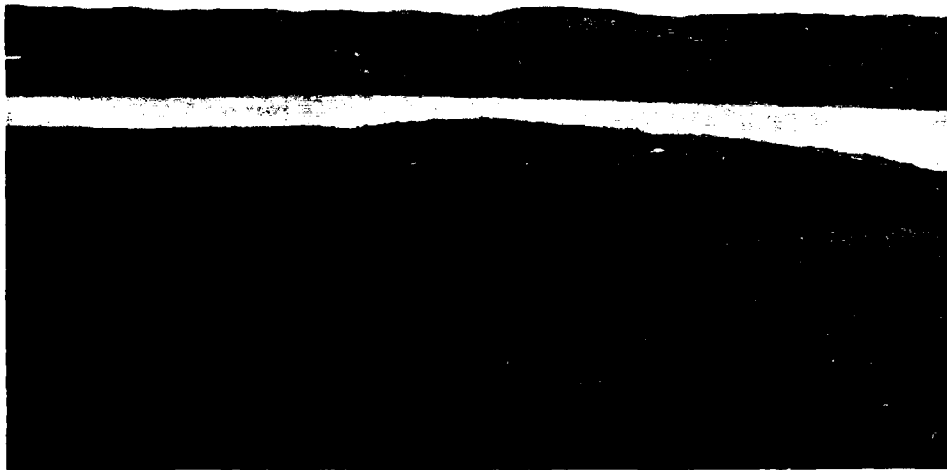


Plate 14. Site 39DW135, facing south.



Plate 15. Site 39DW135, rock pile/cairn amid artifact scatter, facing southwest.

Site number: 39DW136 Site name:
County: Dewey State: South Dakota Site map: Figure 21
Property owner(s) and address(es): Private (outside project area).
Site type: Cairn.
Component(s): Aboriginal?
Elevation (m): 530.
Topographic position: Hilltop.
Slope: Flat (0°).
Site size: 0.0003 ha.
Soil(s), strata and depth: SbE - topsoil - unknown.
Vegetation: Short grass.
Ground surface visibility (%): 30.
Nearest water: 500 m. Buffalo Creek (intermittent stream).
Site condition - impacts: Undisturbed.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Cairn, landform.
Previous investigations: None.
Location of artifacts: N/A.
Recommendations: N/A (outside project area).
Remarks: This site (Plate 16) is a cairn with dimensions of 1.8 m N-S x 1.8 m E-W. It consists of 31 closely clustered stones.
Testing for National Register Eligibility (purpose of): N/A.

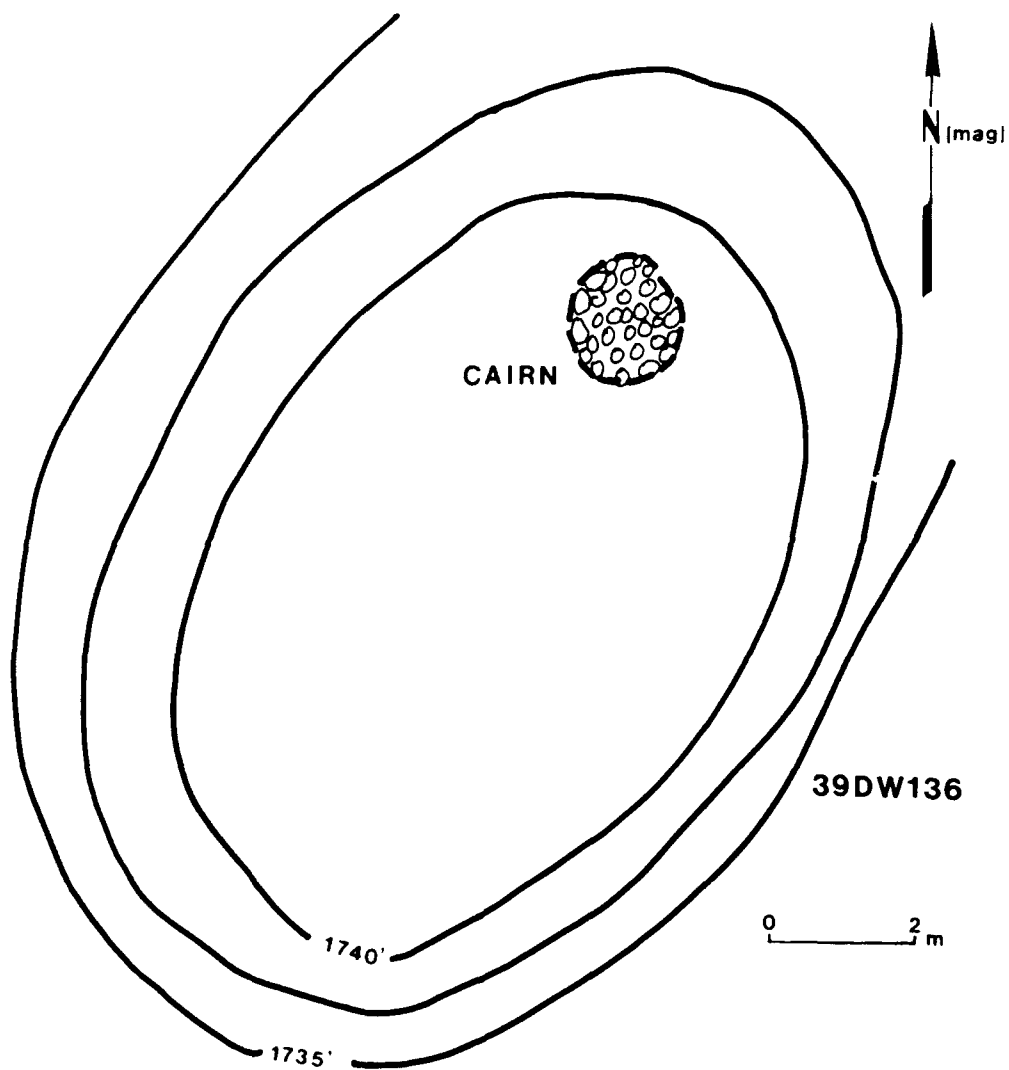


Figure 21. Plan of site 39DW136.

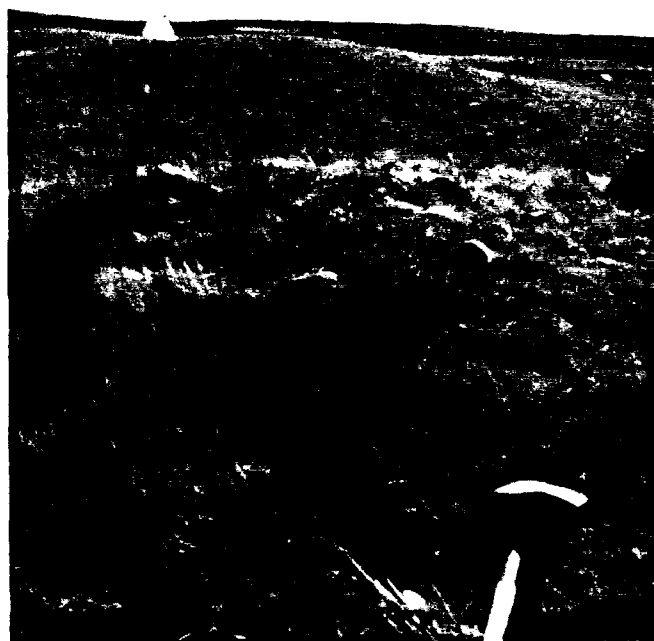


Plate 16. View of rock piles/cairns at site 39DW136, facing east-northeast. Corps boundary marker in background (site on private land).

Site number: 39DW138 Site name:
County: Dewey State: South Dakota Site map: Figure 22
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha, Nebraska.
Site type: Cairns, depressions (gravel prospecting pits?), and isolated flake.
Component(s): Aboriginal and unknown (recent?).
Elevation (m): 500.
Topographic position: Terrace ridge remnant.
Slope: Flat (0°).
Site size: 0.34 ha.
Soil(s), strata and depth: SbC - topsoil - surface.
Shovel test: 0-25 cm bs. From 0-10-15 cm bs: a medium brown silt soil; gravel increasing below that.
Vegetation: Short grass.
Ground surface visibility (%): 30.
Nearest water: Distance indeterminate. Missouri River (permanent stream).
Site condition - impacts: Apparently undisturbed, but potentially subject to recreational impact and future cutbank impacts.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Datum, shovel test (negative), flake, two depressions, six cairns, landform.

<u>Plot</u>	<u>Description</u>
1	Rectangular depression, 8.6 m N-S x 7.5 m E-W, 0.6 m deep
2	Circular depression, 2.3 m N-S x 2.0 m E-W, 0.2 m deep
3	Cairn, 0.5 m diameter, 11 stones
4	Cairn, 1.2 m N-S x 1.1 m E-W, 24 stones, open in center
5	Cairn, 1.6 m N-S x 1.6 m E-W, 29 stones, open in center
6	Cairn, 1.0 m N-S x 1.2 m E-W, 17 stones, open in center
7	Cairn, 0.9 m N-S x 1.0 m E-W, 13 stones
8	Cairn, 1.2 m diameter, 43 stones
Flake	Chalcedony tertiary flake

Previous investigations: None.
Location of artifacts: N/A.

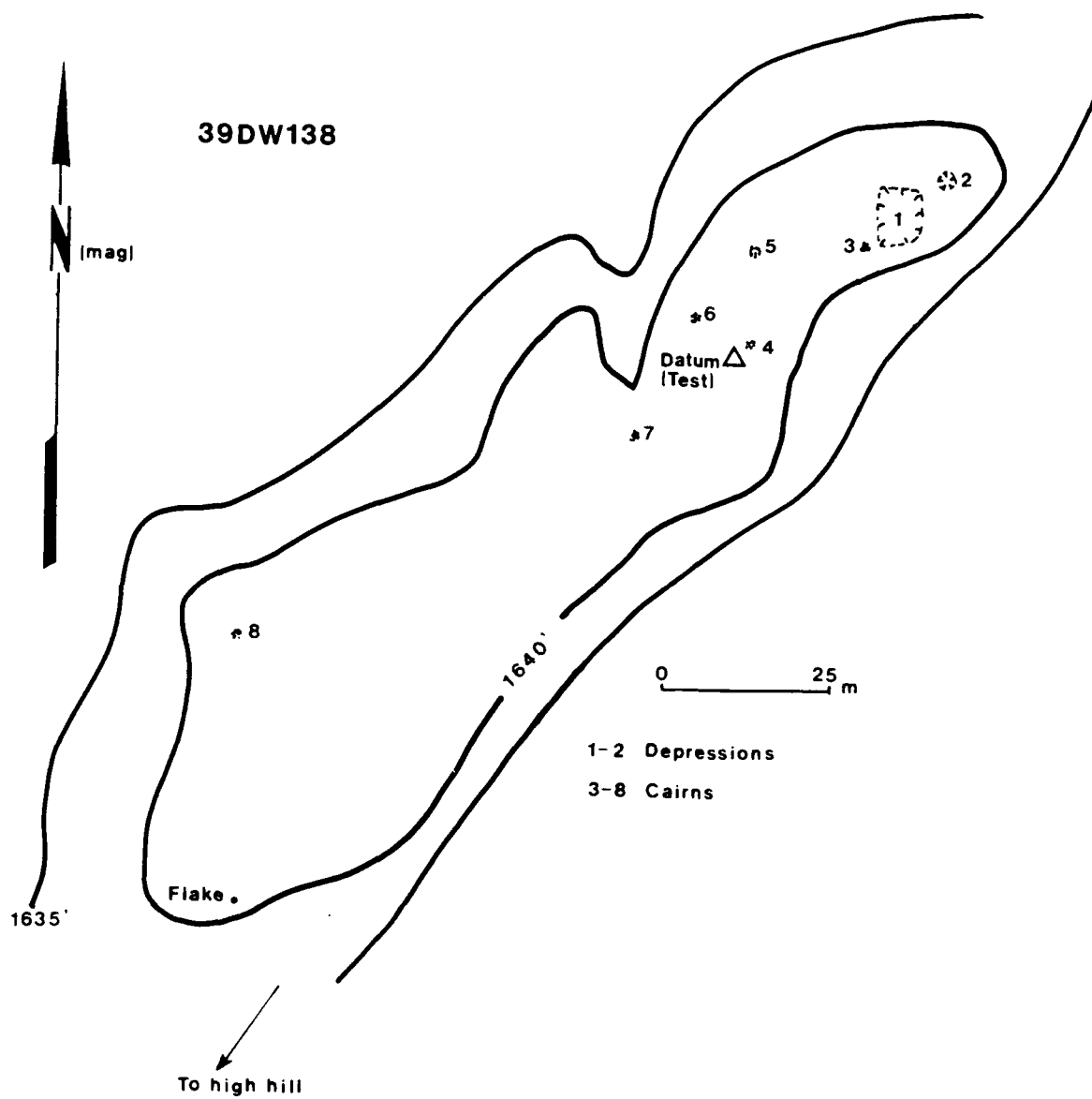


Figure 22. Plan of site 39DW138.

Recommendations: Testing is recommended to assess site extent and content. This site is threatened by cutbank erosion, although not in the immediate future. This point of land is also impacted by sportsmen who frequently use the area, as evidenced by recent debris on the beach.

Remarks: The site (Plate 17) consists of two depressions (Nos. 1-2), six cairns (Nos. 3-8) and a chalcedony tertiary flake.

Testing for National Register Eligibility (purpose of): Excavate a minimum of one 50 cm² controlled excavation unit in each of two or more of the cairns, including one with central stones and one without. Both depressions should be tested to determine their nature and cultural affiliation. A 0.5 m wide trench, 1-2 m long, should be excavated to sterile soil across each depression. These tests would evaluate the site's integrity and determine whether there are additional subsurface deposits. The evaluation of these factors would indicate whether the site has the potential to yield information important in prehistory or history and thus be eligible for nomination to the National Register of Historic Places.



Plate 17. Site 39DW138, facing northeast.

Site number: 39DW139 Site name:
County: Dewey State: South Dakota Site map: Figure 23
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha,
 Nebraska.
Site type: Cairn and artifact scatter.
Component(s): Aboriginal.
Elevation (m): 500.
Topographic position: Ridge crest.
Slope: Gentle (1-2°, SSW).
Site size: 0.13 ha.
Soil(s), strata and depth: SbC/fine tan-light brown silty loess - dark
 gray buried Ah horizon near the upper surface of the loess deposits(?),
 and other(?) - 10-50 cm bs.
Shovel test: Cutbank exposures were substituted.
Vegetation: Short grass.
Ground surface visibility (%): 30.
Nearest water: 350 m. Missouri River (permanent stream).
Site condition - impacts: Shoreline erosion (severe) and vandalism
 (present).
Surface collections (by whom and when): AL 1988.
Collected artifacts: Core (AL 1988).
Data plotted on site map: Datum, 14 material locations (#1, 3-15),
 cairn (#2), cutbank exposure and landform.

<u>Plots</u>	<u>Description</u>
1	Gray quartzite tertiary flake
2	Cairn, 1.2 m N-S x 1.0 m E-W, 15 stones
3	TRS primary flake and tertiary flake
4	Gray TRS shatter and tertiary flake
5	Gray TRS shatter and tertiary flake
6	Gray TRS tertiary flake
7	Gray TRS tertiary flake
8	Gray quartzite flake fragment and gray TRS secondary flake
9	Three gray TRS tertiary flakes
10	Two bone fragments
11	Two bone fragments
12	TRS shatter, flake fragment, primary flake and tertiary flake
13	Large TRS biface fragment

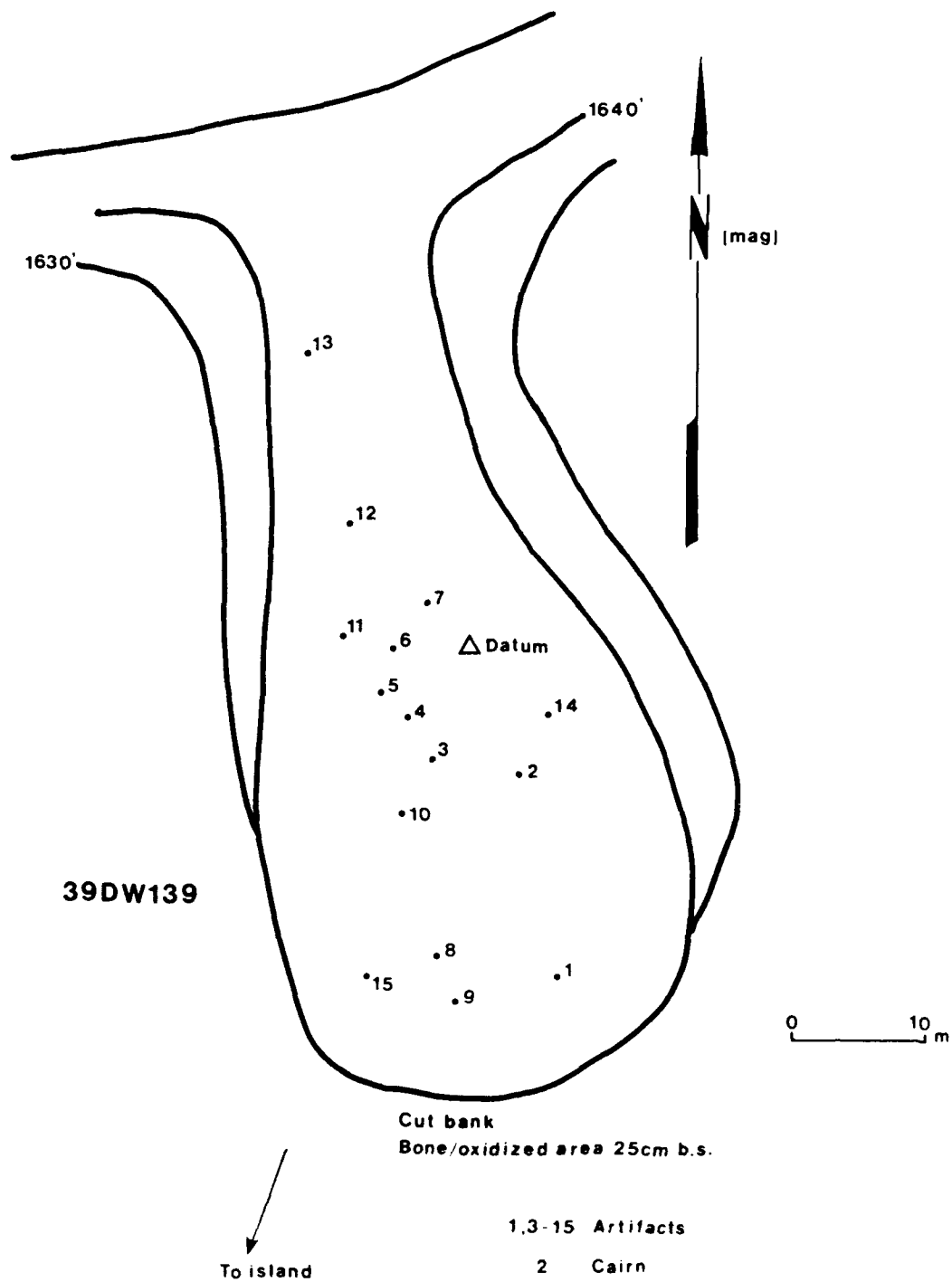


Figure 23. Plan of site 39DW139.

<u>Plot</u>	<u>Description</u>
14	Tabular TRS core
15	TRS shatter

Previous investigations: None.

Location of artifacts: SDARC.

Recommendations: Testing to assess site extent and content.

Insufficient information exists to determine NRHP eligibility.

Remarks: This site (Plate 18) consists of a cairn, a sparse, dispersed lithic and bone scatter, and oxidized soil exposed in the cutbank at about 25 cm bs. The site is 52 m N-S by 25 m E-W. A bone fragment (nonhuman) was observed in the cutbank at a depth of about 1.2 m, and bone and charcoal fragments were observed below this at a depth of about 2.1 m. Indentations in the cutbank, bones (two bones, one of which is a bison or cow long bone), melon rinds and footprints on the beach and slump suggest "pothunting."

Testing for National Register Eligibility (purpose of): The nature and extent of subsurface deposits is unknown; the relationship between the cairn, surface artifacts, and buried materials is also unknown. Relatively deep loess deposits obviously contain some buried materials.

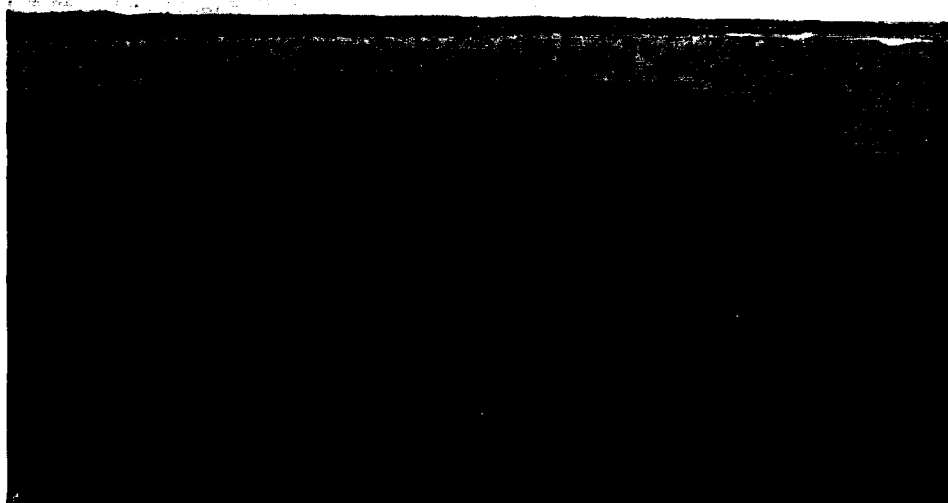


Plate 18. Site 39DW139, facing southeast.

Site number: 39DW140 Site name:
County: Dewey State: South Dakota Site map: Figure 24
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha,
Nebraska.
Site type: Cairn and isolated shatter fragment.
Component(s): Aboriginal?
Elevation (m): 500.
Topographic position: Ridge crest.
Slope: Moderate (3°, NNW).
Site size: 0.00024 ha.
Soil(s), strata and depth: SbC - topsoil - surface.
Shovel test: 0-25 cm bs. 0-10 cm bs is a dark brown loess; 10-20 cm bs
is brown loess and calcium carbonate; gravel at 20 cm bs.
Vegetation: Short grass.
Ground surface visibility (%): 30.
Nearest water: 480 m. Missouri River (permanent stream).
Site condition - impacts: Undisturbed.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Datum, shovel test (negative), cairn,
shatter, landform.
Previous investigations: None.
Location of artifacts: N/A.
Recommendations: No further work is recommended unless the site is to
be impacted. If so, test for National Register eligibility. Evidence
is insufficient to determine NRHP eligibility. Cairns can be markers
relating to important events or persons. They may mark burials or have
some significance with regard to the care of the dead. Cairns often
mark routeways and may be considered significant in a broader context.
Remarks: This site (Plate 19) consists of a cairn and a gray TRS
shatter located about 3 m east of the cairn. The cairn measures 1.2 m
N-S x 1.0 m E-W and contains ca. 21 stones of double-fist size.
Testing for National Register Eligibility (purpose of): If impacts
occur, excavate a minimum of one 50 cm² controlled excavation unit
centered over the cairn. The purpose of this test is to determine the
structure of the cairn and locate any cultural materials (if present),
and to determine if there are any materials buried beneath the cairn.

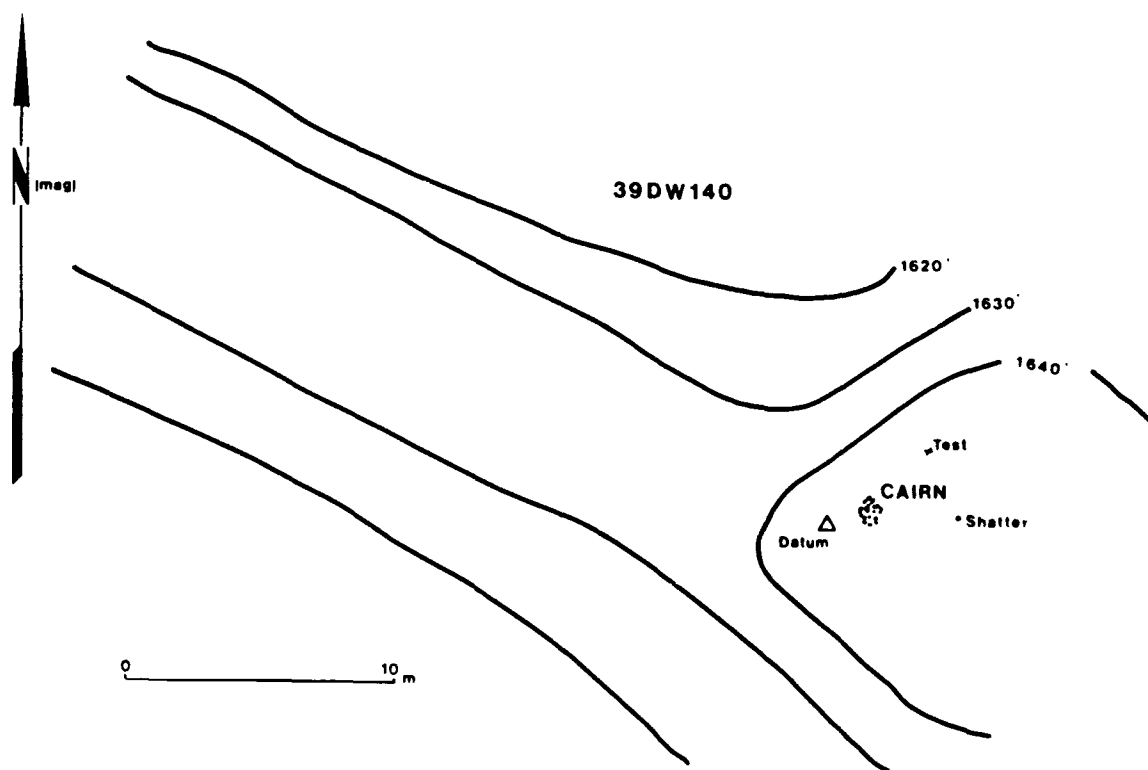


Figure 24. Plan of site 39DW140.

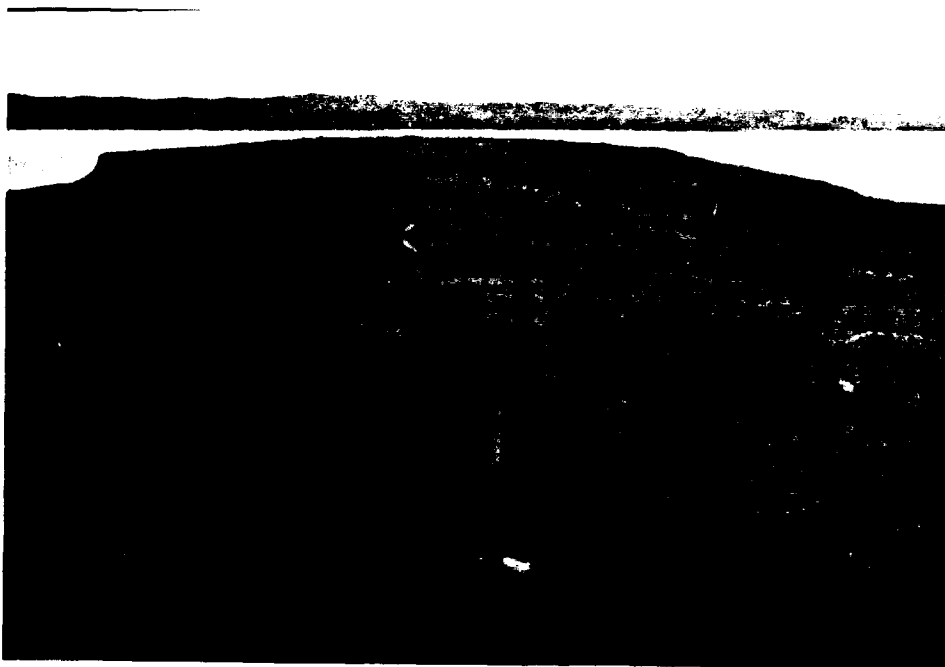


Plate 19. View towards site 39DW140 (by person, middle distance),
facing southeast.

Site number: 39DW141 Site name:
County: Dewey State: South Dakota Site map: Figure 25
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha,
Nebraska.
Site type: Cairn.
Component(s): Aboriginal?
Elevation (m): 518.
Topographic position: Ridge crest.
Slope: Gentle (1°, SE).
Site size: 0.00026 ha.
Soil(s), strata and depth: SbC - topsoil - surface.
Shovel test: 0-35 cm bs. Dark brown Pierre Shale-derived soil, not
compact, with Pierre Shale concretions and some gravel.
Vegetation: Short grass.
Ground surface visibility (%): 20.
Nearest water: 370 m. Intermittent stream (unnamed).
Site condition - impacts: Undisturbed.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Datum, cairn, shovel test (negative),
landform.
Previous investigations: None.
Location of artifacts: N/A.
Recommendations: No further work is recommended unless the site is to
be impacted. If so, test for National Register eligibility.
Insufficient evidence exists to determine NRHP eligibility. Cairns can
be markers relating to important events or persons. They may mark
burials or have some significance with regard to the care of the dead.
Cairns often mark routeways and may be considered significant in a
broader context.
Remarks: This site (Plate 20) consists of a cairn with dimensions of
1.6 m N-S x 1.6 m E-W. It has ca. 31 stones.
Testing for National Register Eligibility (purpose of): In the event of
future impacts, excavate a minimum of one 50 cm² controlled excavation
unit centered over the cairn. The purpose of this test is to determine
the cairn's structure, to locate any cultural materials (if present),
and to determine if there are any materials buried beneath the cairn.

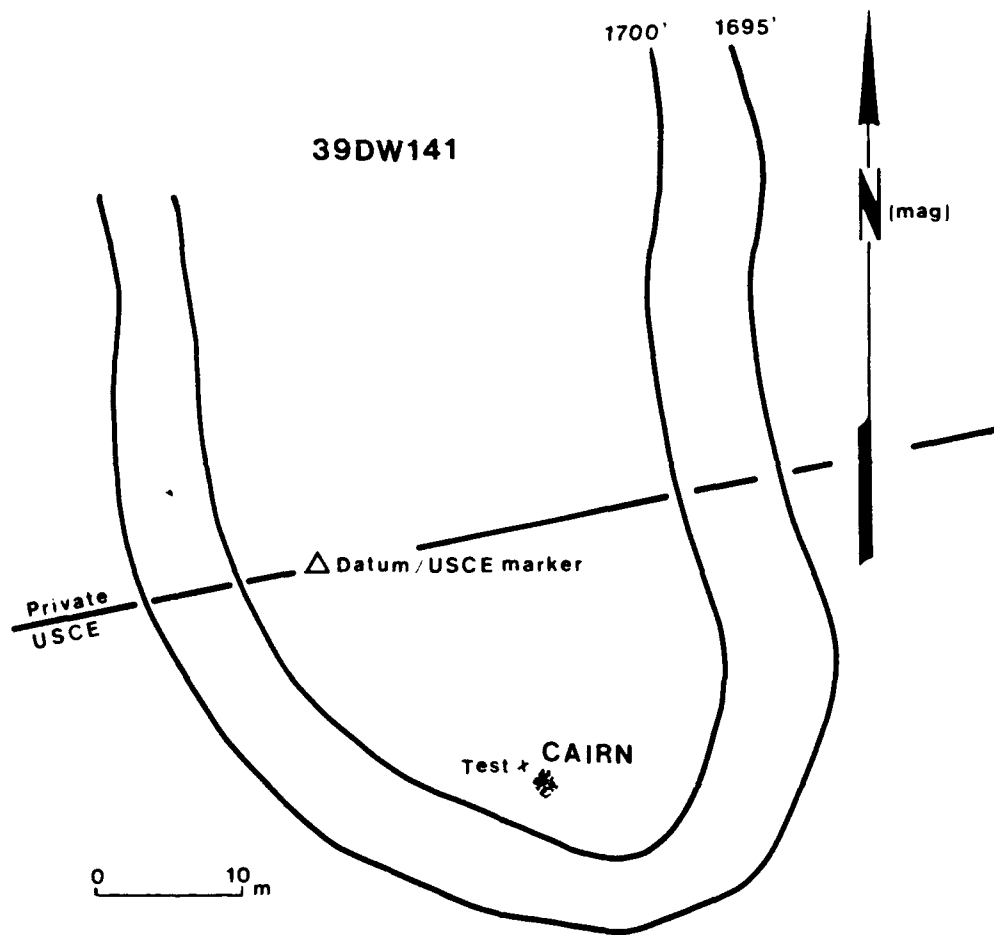


Figure 25. Plan of site 39DW141.



Plate 20. Site 39DW141, facing southeast.

Site number: 39DW142 Site name:
County: Dewey State: South Dakota Site map: Figure 26
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha,
Nebraska.
Site type: Cairn.
Component(s): Aboriginal?
Elevation (m): 521.
Topographic position: Hilltop.
Slope: Flat (0°).
Site size: 0.00009 ha.
Soil(s), strata and depth: SbE - topsoil - surface.
Shovel test: 0-20 cm bs. Very gravelly, silty soil.
Vegetation: Short grass.
Ground surface visibility (%): 50.
Nearest water: 960 m. Missouri River (permanent stream).
Site condition - impacts: Undisturbed.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Datum, cairn, shovel test (negative),
landform.
Previous investigations: None.
Location of artifacts: N/A.
Recommendations: No further work is recommended unless the site is to
be impacted. If so, test for National Register eligibility.
Insufficient evidence exists to determine NRHP eligibility. Cairns can
be markers relating to important events or persons. They may mark
burials or have some significance with regard to the care of the dead.
Cairns often mark routeways and may be considered significant in a
broader context.
Remarks: This site (Plate 21) is a stone cairn with 13 double fist-size
stones. Overall the cairn measures 1.0 m N-S x 0.9 m E-W.
Testing for National Register Eligibility (purpose of): In the event of
future impacts, excavate a minimum of one 50 cm² controlled excavation
unit centered over the cairn. The purpose of this test is to determine
the structure of the cairn, to locate any cultural materials (if
present), and to determine if there are any materials buried beneath the
cairn.

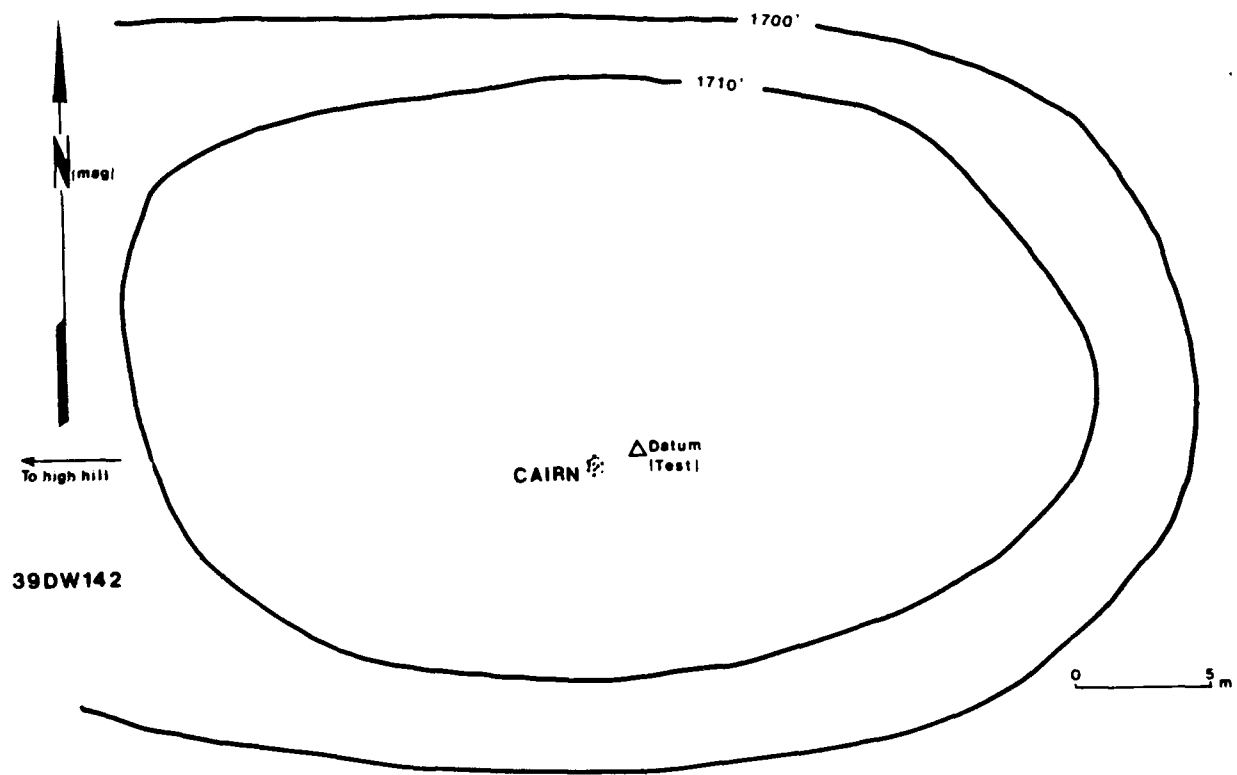


Figure 26. Plan of site 39DW142.



Plate 21. Site 39DW142, facing east-southeast.

Site number: 39DW143 Site name:
County: Dewey State: South Dakota Site map: Figure 27
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha, Nebraska.
Site type: Cairn and isolated shatter fragment; gravel prospecting pits.
Component(s): Aboriginal and recent.
Elevation (m): 518.
Topographic position: Ridge crest.
Slope: Flat (0°).
Site size: 0.005 ha.
Soil(s), strata and depth: SbE - topsoil - surface.
Shovel test: 0-25 cm bs. Gravel and sandy soil.
Vegetation: Short grass.
Ground surface visibility (%): 60.
Nearest water: 1250 m. Missouri River (permanent stream).
Site condition - impacts: Disturbed by erosion and gravel pits/tests.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Datum, shovel test (negative), cairn, shatter, two gravel prospecting pits, landform.
Previous investigations: None.
Location of artifacts: N/A.
Recommendations: No further work is recommended unless the site is to be impacted. If so, test for National Register eligibility. Evidence is insufficient to determine NRHP eligibility. Cairns can be markers relating to important events or persons or they may mark burials or have some significance with regard to the care of the dead. Cairns often mark routeways and may be considered significant in a broader context.
Remarks: The site (Plate 22) consists of a cairn, a nearby TRS shatter and two gravel tests. The cairn is 0.75 m N-S x 1.0 m E-W and consists of 11 stones. The shatter is about 26 m northwest of the cairn.
Testing for National Register Eligibility (purpose of): If impacts occur, excavate a minimum of one 50 cm² controlled excavation unit centered over the cairn. The purpose of this test is to determine the structure of the cairn, locate any cultural materials (if present), and to determine if there are materials buried beneath the cairn.

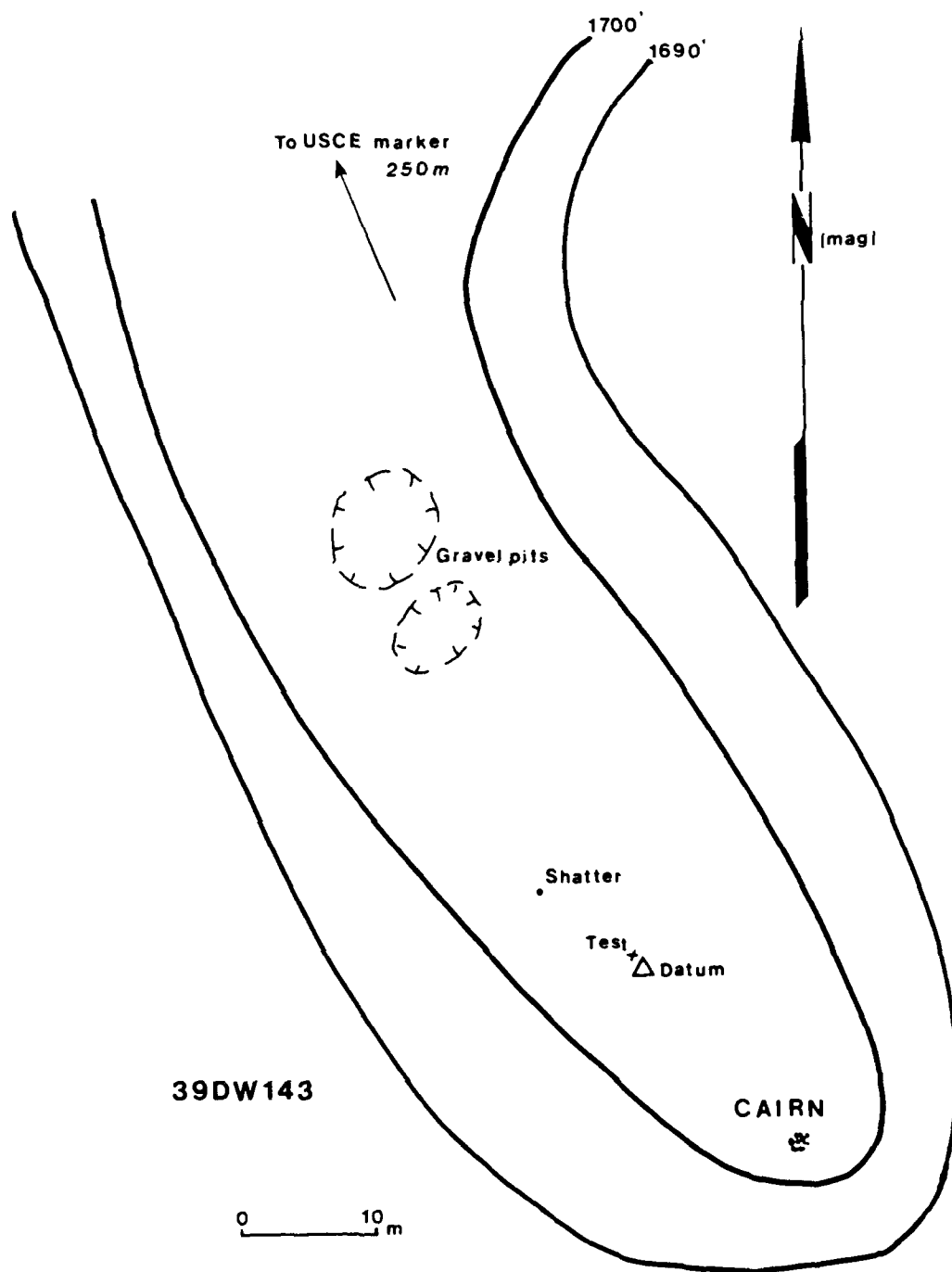


Figure 27. Plan of site 39DW143.



Plate 22. Site 39DW143, facing south.

Site number: 39DW144 Site name:
County: Dewey State: South Dakota Site map: Figure 28
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha,
 Nebraska.
Site type: Cairn and artifact scatter.
Component(s): Aboriginal.
Elevation (m): 520.
Topographic position: Valley bluff.
Slope: Gentle (1°, E).
Site size: 0.096 ha.
Soil(s), strata and depth: SbE - topsoil - surface.
Shovel test: 0-30 cm bs. 10 cm of gray Pierre Shale-derived soil and
 then 20 cm of dark gray Pierre Shale subsoil.
Vegetation: Short grass.
Ground surface visibility (%): 20.
Nearest water: 300 m. Swift Bird Creek (intermittent stream).
Site condition - impacts: Slopewash present.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Datum, 12 material locations, cairn, shovel
 test (negative), Corps marker, landform.

<u>Plot</u>	<u>Description</u>
1	TRS flake fragment
2	Gray TRS shatter
3	Gray TRS core
4	Red TRS flake fragment
5	Red TRS tertiary flake
6	Gray TRS secondary flake
7	Granitic tested cobble?
8	Gray TRS secondary flake
9	Small stone setting/cairn, open in center, 2.7 m N-S x 2.1 m E-W, nine head-sized stones
10	Gray TRS tertiary flake and gray TRS primary flake
11	Gray TRS primary flake
12	Gray TRS tertiary flake
13	Gray TRS prismatic tertiary flake

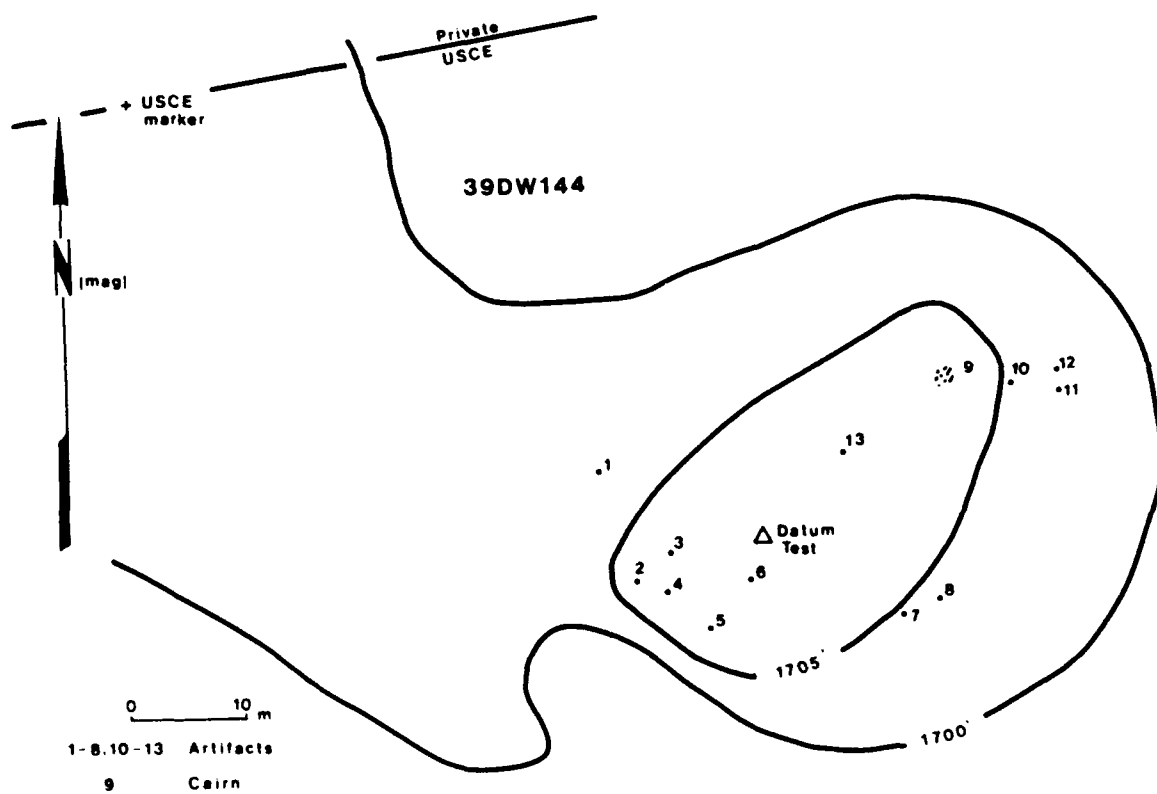


Figure 28. Plan of site 39DW144.

Previous investigations: None.

Location of artifacts: N/A.

Recommendations: Ineligible; no further work is recommended. The site lacks integrity. It is a surface manifestation and will not yield additional information important in prehistory or history. The site does not meet any other criteria of eligibility for nomination to the National Register of Historic Places.

Remarks: This site (Plate 23) consists of a cairn or small stone circle and a sparse, dispersed lithic scatter. The cairn is 2.7 m N-S x 2.1 m E-W and contains nine large (human head-size) stones. Thirteen lithic items were observed at 12 locations (see Table 17).

Testing for National Register Eligibility (purpose of): N/A.



Plate 23. Site 39DW144, facing southeast.

Site number: 39DW145 Site name:
County: Dewey State: South Dakota Site map: Figure 29
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha,
Nebraska.
Site type: Cairn.
Component(s): Aboriginal?
Elevation (m): 512.
Topographic position: Ridge crest.
Slope: Flat (0°).
Site size: 0.00007 ha.
Soil(s), strata and depth: SbE - topsoil - surface.
Shovel test: 0-30 cm bs. Dark brown soil derived from Pierre Shale,
gravelly to 20 cm bs.
Vegetation: Short grass.
Ground surface visibility (%): 60.
Nearest water: 200 m. Intermittent stream (unnamed).
Site condition - impacts: Undisturbed.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Datum, shovel test (negative), cairn,
landform.
Previous investigations: None.
Location of artifacts: N/A.
Recommendations: No further work is recommended unless the site is to
be impacted. If so, test for National Register eligibility.
Insufficient evidence exists to determine NRHP eligibility. Cairns can
be markers relating to important events or persons. They may mark
burials or have some significance with regard to care of the dead.
Cairns often mark routeways and may be considered significant in a
broader context.
Remarks: This site (Plate 24) is a cairn with dimensions of 0.9 m N-S x
0.8 m E-W. It contains seven stones.
Testing for National Register Eligibility (purpose of): In the event of
future impacts, excavate a minimum of one 50 cm² controlled excavation
unit centered over the cairn. The purpose of this test is to determine
the cairn's structure, to locate any cultural materials (if present),
and to determine if there are any materials buried beneath the cairn.

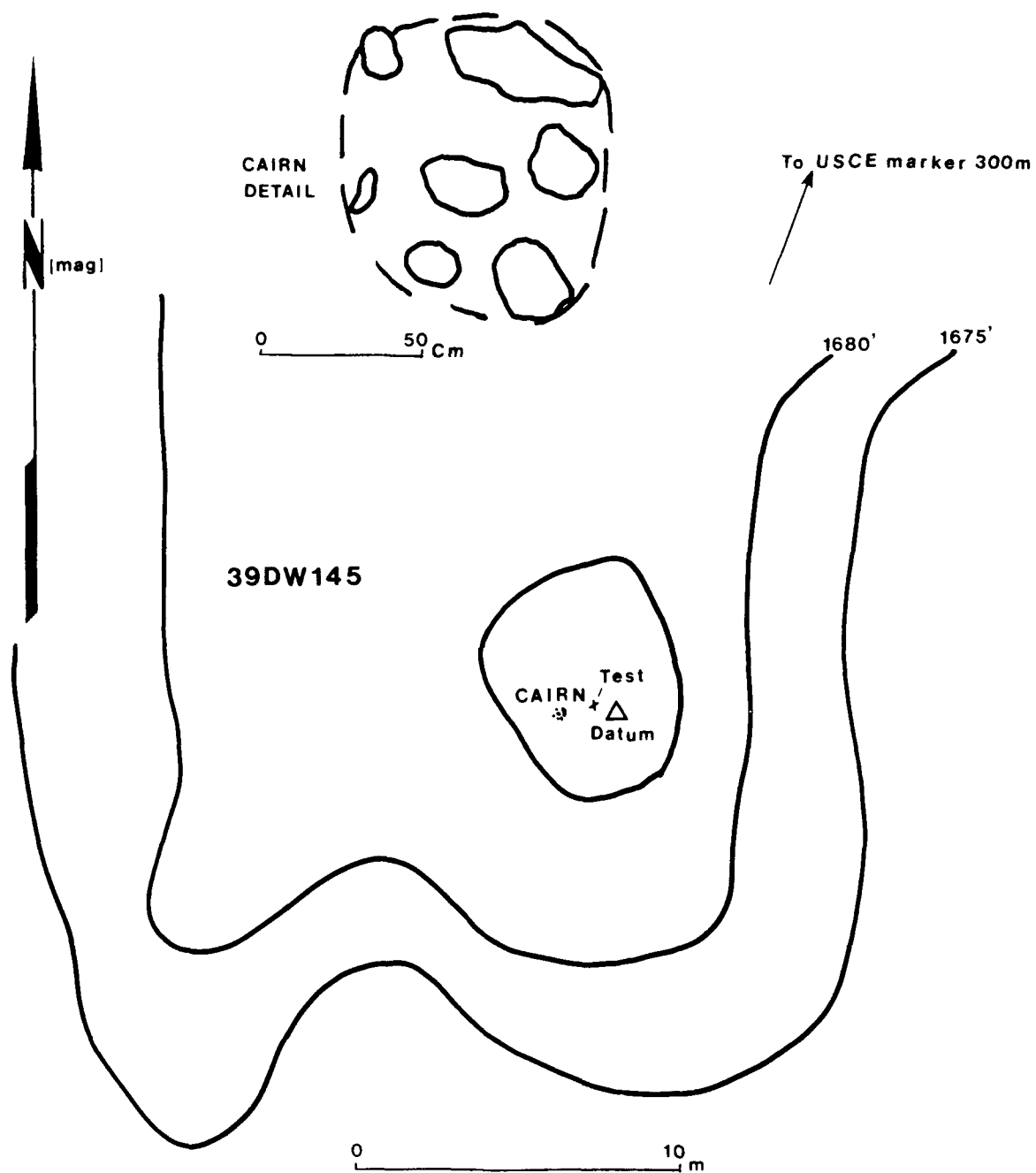


Figure 29. Plan of site 39DW145.



Plate 24. Site 39DW145, facing south-southwest.

Site number: 39DW146 Site name:
County: Dewey State: South Dakota Site map: Figure 30
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha, Nebraska.
Site type: Cairn.
Component(s): Aboriginal?
Elevation (m): 497.
Topographic position: Hilltop.
Slope: Moderate (3°, NNE).
Site size: 0.0001 ha.
Soil(s), strata and depth: SbC - topsoil - surface.
Shovel test: 0-20 cm bs. 0-5 cm bs: gravelly loam; loose Pierre Shale is below this.
Vegetation: Short grass.
Ground surface visibility (%): 30.
Nearest water: Distance indeterminate. Swift Bird Creek (intermittent stream).
Site condition - impacts: Undisturbed.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Datum, shovel test (negative), cairn, landform, cutbank.
Previous investigations: None.
Location of artifacts: N/A.
Recommendations: No further work is recommended unless the site is to be impacted; if so, test for NRHP eligibility. Insufficient evidence exists to determine NRHP eligibility. Cairns can be markers relating to important events or persons or they may mark burials or have some significance with regard to care of the dead. Cairns often mark routeways and may be considered significant in a broader context.
Remarks: This site (Plate 25) consists of a cairn which measures 0.9 m N-S x 1.2 m E-W and contains 11 stones.
Testing for National Register Eligibility (purpose of): If impacts occur, excavate a minimum of one 50 cm² controlled excavation unit centered over the cairn. The purpose of this test is to determine the structure of the cairn, to locate any cultural materials (if present), and to determine if there are any materials buried beneath the cairn.

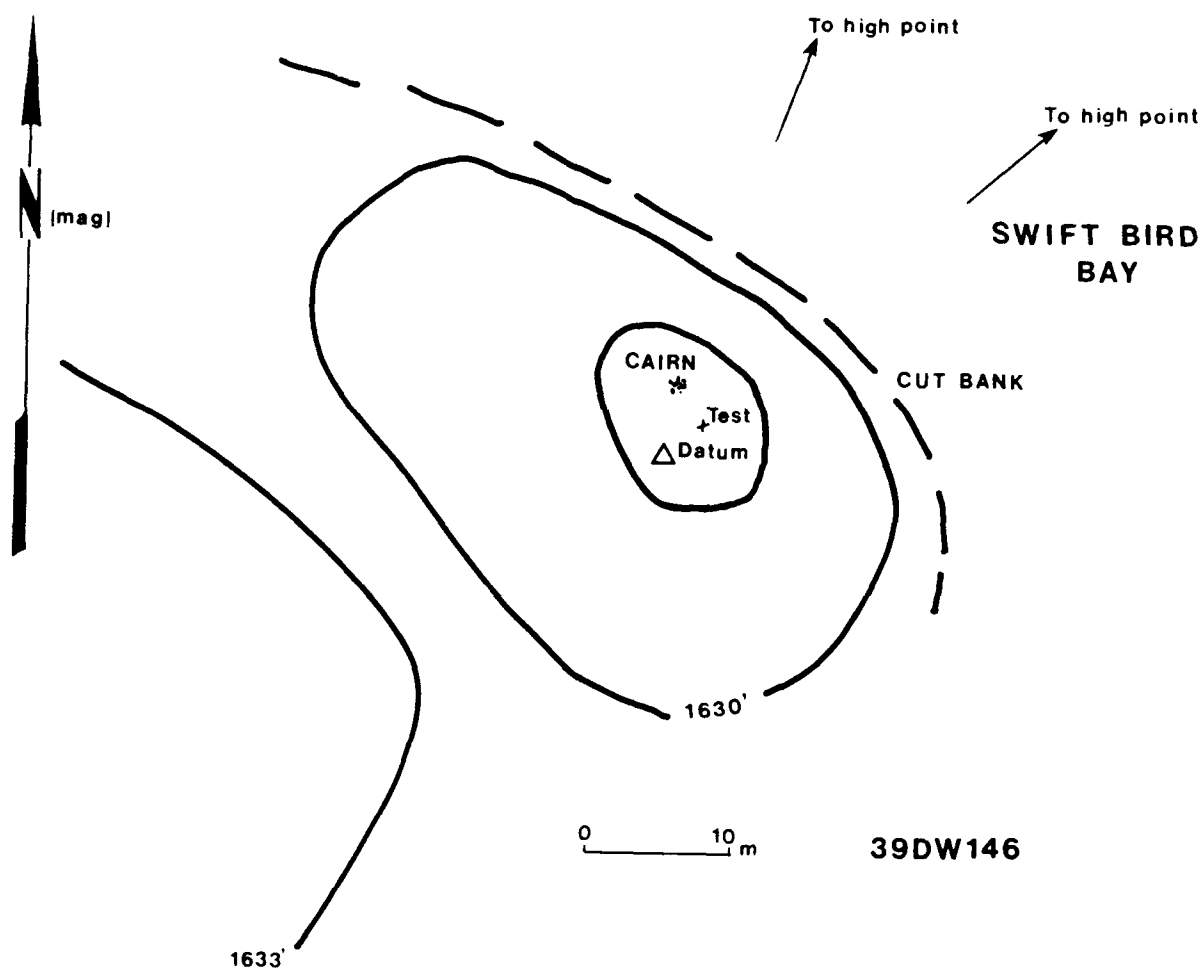


Figure 30. Plan of site 39DW146.



Plate 25. Site 39DW146, facing east-northeast.

E. Stone Circle and Cairns

Site number: 39DW137 Site name:
County: Dewey State: South Dakota Site map: Figure 31
Property owner(s) and address(es): Private (outside project area).
Site type: Stone circle and cairns.
Component(s): Aboriginal.
Elevation (m): 543.
Topographic position: Ridgetop.
Slope: Flat (0°).
Site size: 0.24 ha.
Soil(s), strata and depth: SbE - topsoil - unknown.
Vegetation: Short grass.
Ground surface visibility (%): 30.
Nearest water: 360 m. Intermittent stream (unnamed).
Site condition - impacts: Undisturbed.
Surface collections (by whom and when): None.
Collected artifacts: None.
Data plotted on site map: Stone circle, four cairns, landform.

<u>Plot</u>	<u>Description</u>
1	Stone circle, 6.7 m N-S x 6.6 m E-W, 65 stones
2	Cairn, 3.0 m diameter, 25 stones
3	Cairn, 2.0 m diameter, 35 stones
4	Cairn, 1.85 m N-S x 1.20 m E-W, 25 stones
5	Cairn, 1.00 m N-S x 0.75 m E-W, 9 stones

Previous investigations: None.
Location of artifacts: N/A.
Recommendations: N/A (outside project area).
Remarks: This site (Plate 26) consists of one stone circle (No. 1) and four stone cairns (Nos. 2-5).
Testing for National Register Eligibility (purpose of): N/A.

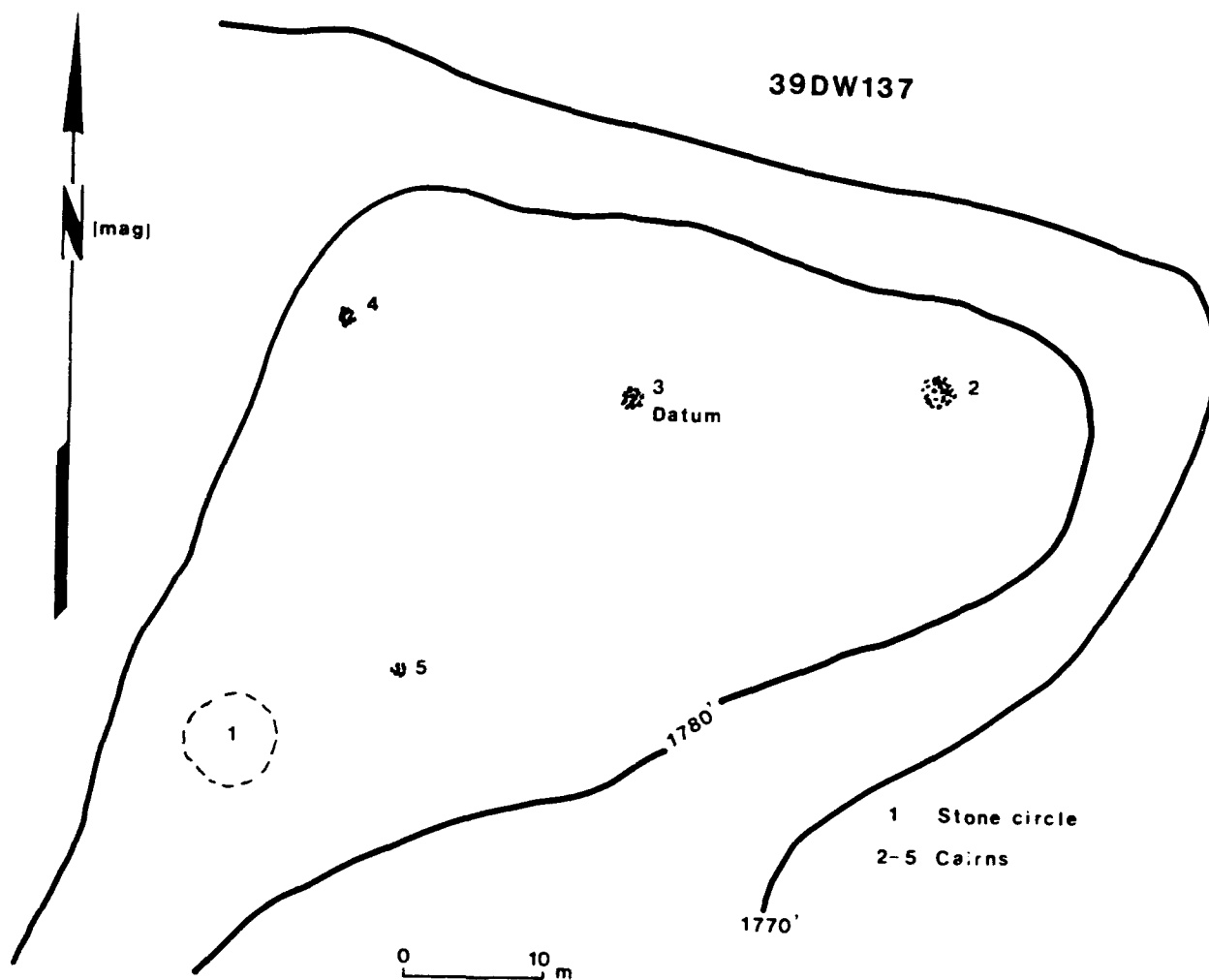


Figure 31. Plan of site 39DW137.

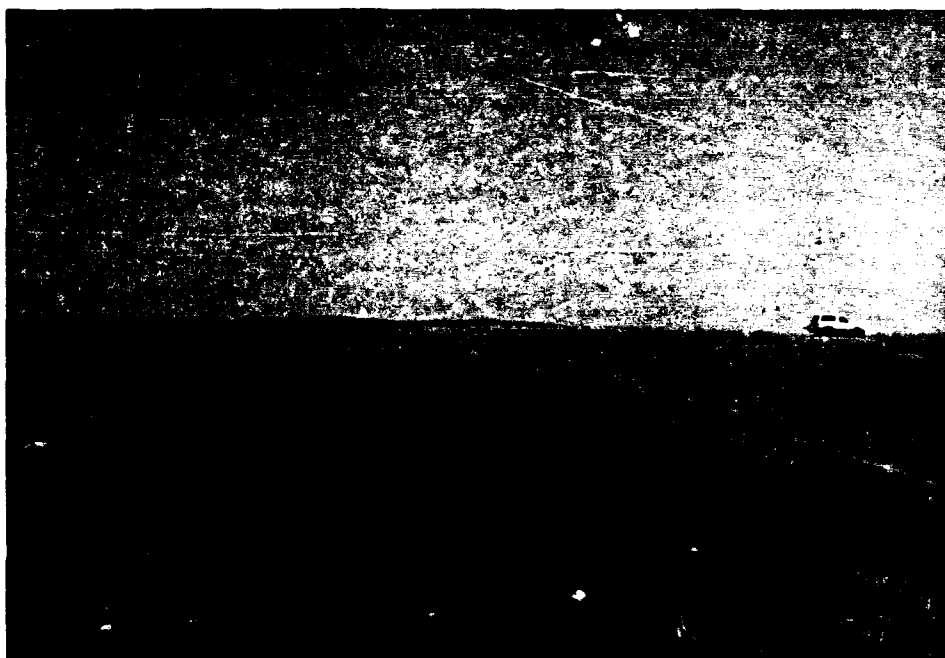


Plate 26. Overview of site 39DW137, facing northeast.

F. Isolated Projectile Points/Point Fragments

Site number: 39DW147 Site name:
County: Dewey State: South Dakota Site map: N/A.
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha,
Nebraska.
Site type: Isolated find - projectile point fragment.
Component(s): Besant?
Elevation (m): 500.
Topographic position: Valley floor.
Slope: Gentle (1-2°, W).
Site size: 0.0001 ha.
Soil(s), strata and depth: DsE - topsoil - surface.
Vegetation: Short grass.
Ground surface visibility (%): 30.
Nearest water: 251 m. Intermittent stream (unnamed).
Site condition - impacts: Disturbed by surface erosion.
Surface collections (by whom and when): AL 1988.
Collected artifacts: Projectile point fragment (AL 1988).
Data plotted on site map: None - isolated find.
Previous investigations: None.
Location of artifacts: SDARC.
Recommendations: Ineligible; no further work is recommended. The site lacks integrity. It is a surface manifestation and will not yield additional information important in prehistory or history. The site does not meet any other criteria of eligibility for nomination to the National Register of Historic Places.
Remarks: This is an isolated find - a projectile point fragment. A site number was assigned only for record-keeping purposes, as required by SDARC.
Testing for National Register Eligibility (purpose of): N/A.

Site number: 39DW148 Site name:
County: Dewey State: South Dakota Site map: N/A.
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha,
Nebraska.
Site type: Isolated find - projectile point fragment.
Component(s): Late Paleoindian.
Elevation (m): 494.
Topographic position: Valley floor.
Slope: Gentle (1-2°, NE).
Site size: 0.0001 ha.
Soil(s), strata and depth: SbE - topsoil - surface.
Vegetation: Short grass.
Ground surface visibility (%): 80.
Nearest water: Distance indeterminate - Four Bear Creek (intermittent
stream).
Site condition - impacts: Shoreline erosion, severe.
Surface collections (by whom and when): AL 1988.
Collected artifacts: Projectile point fragment (AL 1988).
Data plotted on site map: None - isolated find.
Previous investigations: None.
Location of artifacts: SDARC.
Recommendations: Ineligible; no further work is recommended. The site
lacks integrity. It is a surface manifestation and will not yield
additional information important in prehistory or history. The site
does not meet any other criteria of eligibility for nomination to the
National Register of Historic Places.
Remarks: This is an isolated find - a projectile point fragment. A
site number was assigned only for record-keeping purposes.
Testing for National Register Eligibility (purpose of): N/A.

Site number: 39DW149 Site name:
County: Dewey State: South Dakota Site map: N/A.
Property owner(s) and address(es): U.S. Army Corps of Engineers, Omaha,
Nebraska.
Site type: Isolated find - projectile point fragment.
Component(s): Late Prehistoric.
Elevation (m): 494.
Topographic position: Terrace.
Slope: Gentle (1-2°, W).
Site size: 0.0001 ha.
Soil(s), strata and depth: LwB - topsoil - surface.
Vegetation: Short grass.
Ground surface visibility (%): 60.
Nearest water: 728 m. Missouri River (permanent stream).
Site condition - impacts: Disturbed by surface erosion.
Surface collections (by whom and when): AL 1988.
Collected artifacts: Projectile point fragment (AL 1988).
Data plotted on site map: None - isolated find.
Previous investigations: None.
Location of artifacts: SDARC.
Recommendations: Ineligible; no further work is recommended. The site lacks integrity. It is a surface manifestation and will not yield additional information important in prehistory or history. The site does not meet any other criteria of eligibility for nomination to the National Register of Historic Places.
Remarks: This is an isolated find - a projectile point fragment. A site number was assigned only for record-keeping purposes.
Testing for National Register Eligibility (purpose of): N/A.

Site number: 39DW150 Site name:
County: Dewey State: South Dakota Site map: N/A.
Property owner(s) and address(es): On boundary between U.S. Army Corps
of Engineers Land, Omaha, Nebraska and private land.
Site type: Isolated find - projectile point.
Component(s): Besant (corner-notched).
Elevation (m): 497.
Topographic position: Valley floor.
Slope: Gentle (1-2°, S).
Site size: 0.0001 ha.
Soil(s), strata and depth: DsE - topsoil - surface.
Vegetation: Short grass.
Ground surface visibility (%): 90.
Nearest water: 23 m. Intermittent stream (unnamed).
Site condition - impacts: Disturbed by surface erosion.
Surface collections (by whom and when): AL 1988.
Collected artifacts: Projectile point (AL 1988).
Data plotted on site map: None - isolated find.
Previous investigations: None.
Location of artifacts: SDARC.
Recommendations: Ineligible; no further work is recommended. The site
lacks integrity. It is a surface manifestation and will not yield
additional information important in prehistory or history. The site
does not meet any other criteria of eligibility for nomination to the
National Register of Historic Places.
Remarks: This is an isolated find - a projectile point fragment. A
site number was assigned only for record-keeping purposes.
Testing for National Register Eligibility (purpose of): N/A.

Isolated Finds

For purposes of this survey an isolated find was defined as "four or less artifacts in isolation, or a very sparse, widespread scatter with a density of no more than one item every 2500 square meters" (Technical Proposal:23 - Appendix H).

The accessioning procedures at SDARC require that all isolated finds that are to be curated be assigned site numbers. Four of the isolated finds located during this survey were diagnostic projectile points. These are described under the site descriptions (above), but are otherwise treated in the report as isolated finds.

A complete listing of all isolated finds recorded during the survey is given in Appendix I. This list includes detailed legal locations. The finds are summarized below in Table 9.

Table 9. Summary of Isolated Finds Recorded During the Dewey County Survey.

CATEGORY	NUMBER OF ISOLATED FINDS
a) Single lithic flake (IFs 2, 13, 14)	3
b) Single lithic tool (IFs 1, 3, 5, 7, 17)	5
c) Two-four lithic items (IF 16)	1
d) Isolated projectile points (Sites 39DW147, 39DW148, 39DW149 and 39DW150)	4
e) Ceramic sherd (IF 6)	1
f) Historic/recent debris/structures* (IFs 9, 11, 12, 19 to 33)	18
g) Paleontological (IF 18)	<u>1</u>
Total Isolated Finds	33

* items less than 50 years old or in secondary contexts

Analysis of the data generated during the Dewey County survey focused on the quantification and summarization of information related to site morphology (type), content (features, artifacts) and location. Specific analyses were accomplished for diagnostic materials and other collected artifacts (projectile points, scrapers, other chipped stone tools, prehistoric ceramics and historic artifacts).

A total of 28 sites (this number includes four isolated projectile point finds and four sites located outside the survey area) and 29 isolated finds were recorded. Data derived through the general studies are presented within the context of the site type discussions. Summaries and analyses of the projectile points, scrapers, bifaces and other lithic artifacts, prehistoric ceramics, bone, shell and one historic artifact are given below. A table (Table 17) summarizes the artifacts observed at the sites. Comments on lithic utilization in the region are also presented.

A detailed study of site distribution in relation to landscape units and soil types compares the results of this survey with those from an earlier survey of portions of Stanley and Dewey counties (Winham and Lueck 1987). Finally, a number of other research topics discussed in the project's research design are evaluated.

Site Types

The sites located on Corps land (N=20) during the survey were divided initially into five types. Table 10 lists these types and the numbers of sites assigned to each category. Note that this table excludes the four isolated projectile point sites and four sites located off Corps property. Numerically rock cairns are the predominant site type in the area.

Site Area and Distribution

Approximate areas were defined for each site located on the basis of extant features and/or the extent of cultural material scatters. These approximate figures are summarized in Table 11. The only sites exceeding 10,000 m² (1 ha) in area are two earthlodge villages (39DW14 and 39DW18).

Table 10. Site Types Recorded on Corps Property During the Dewey County Survey.

TYPE	TOTAL
1 Small prehistoric artifact scatters (less than 10,000 m ²) 39DW21 ² , 39DW52 ³ , 39DW130, 39DW131, 39DW133, 39DW134	6 ¹
2 Earthlodge villages 39DW14, 39DW18, 39DW213	3
3 Cairns 39DW129, 39DW140, 39DW141, 39DW142, 39DW143, 39DW145, 39DW146	7
4 Cairn and depression localities 39DW138	1
5 Cairn associated with artifact scatter 39DW135, 39DW139, 39DW144	3
	TOTAL 20 ⁴

- ¹ This category does not include artifact scatters associated with other features (cairns, earthlodge villages).
- ² This site also contains outwashed Euro-American artifacts.
- ³ This site is outwashed/destroyed; original site size is unknown.
- ⁴ The four sites recorded on private land are not entered in this table: 39DW215 (earthlodge village), 39DW132 (depression), 39DW136 (cairn), and 39DW137 (stone circle and cairn).

Table 11. Site Area by Site Type - Dewey County Survey.

AREA (m ²)	PREHISTORIC ARTIFACT SCATTERS	EARTH- LODGE VILLAGES	CAIRN w/ CAIRNS	CAIRN w/ DEPRESSION	CAIRN w/ ARTIFACTS	ALL SITES
0-10	-	-	6	-	-	6
11-100	-	-	1	-	-	1
101-500	3	-	-	-	-	3
501-1000	-	-	-	-	2	2
1001-5000	2	-	-	1	1	4
5001-10,000	-	1	-	-	-	1
10,001-25,000	-	-	-	-	-	0
25,000+	-	2	-	-	-	2

* Site 39DW52 is excluded since the site is outwashed and original size is unknown.

Site Location and Settlement Patterns

The locational characteristics for those sites recorded on Corps land during the Dewey County survey display two distinct patterns. First, terrace locations are associated with artifact scatters and earthlodge villages; and secondly, cairns are associated with ridge crests and hilltops. Two exceptions do occur. Sites 39DW130 and 39DW131, both artifact scatters, are located on a ridgetop and a hilltop, respectively. Both sites occur in the same general area (see Appendix A) and are clearly ephemeral/transitory sites. Also, both sites are more than 1000 meters from a water source, whereas all other artifact scatters and earthlodge villages are less than 800 meters from a water source. Indeed, all but two of the villages are within 350 meters. All of the cairns are over 200 meters from a water source; most are between 350-500 meters, but some are over 1000 meters.

The overall settlement pattern is difficult to establish with so few sites and so little temporal/cultural information, but there are two points that are worth noting. First, three of the earthlodge villages occur on adjacent terraces in the vicinity of Four Bear Creek and

Fielder Creek (see Appendix A: Map D). This pattern is further addressed in the analysis of sites and landforms. The earthlodges are associated with Landscape Unit 5 (ridges of Pierre Shale and old terraces, see p. 189).

The second observation is in relation to cairns. Most of the cairns recorded during this survey reflect a preference for the ends of ridges rather than the highest point of the ridge. This type of location is clearly indicated for sites 39DW129, 39DW135, 39DW138, 39DW139, 39DW141, 39DW142, 39DW143, 39DW144, and 39DW145. These ridges generally overlook the Missouri River. Site location in relation to the geomorphology of the survey area is discussed in Chapter 3 and below (pp. 189-200).

Summary of Site Chronology

In terms of site chronology, a total of 24 site components (sites) identified during the survey were evaluated (the four isolated projectile point sites are not included). One site, 39DW133, is assigned to the Late Prehistoric period on the basis of an unnotched triangular projectile point. Three sites contained ceramics that would fit into an Extended Coalescent framework (39DW14, 39DW134 and 39DW213). Site 39DW213 also contained one rim/shoulder sherd of Riggs ware, an Extended Middle Missouri pottery type. Two other sites, 39DW18 and 39DW21, have been recorded as representative of the Plains Village tradition. Another village site (39DW215) which is located on private land was briefly visited during the project. No historic Euro-American or historic Native American sites were recorded, although some outwashed historic materials were noted at 39DW21. It is possible that some of the cairns are also historic. The remaining 17 sites, which lack sufficient data to permit temporal placement, include 12 cairns, one stone circle site, one depression and three artifact scatters.

Artifact Descriptions by L. Adrien Hannus

Projectile Points

Five projectile points or projectile point fragments were recovered during this survey. The projectile points are illustrated in Figure 32. Table 12 relates the projectile points to a cultural/temporal complex and temporal locus and is followed by descriptions of each specimen.

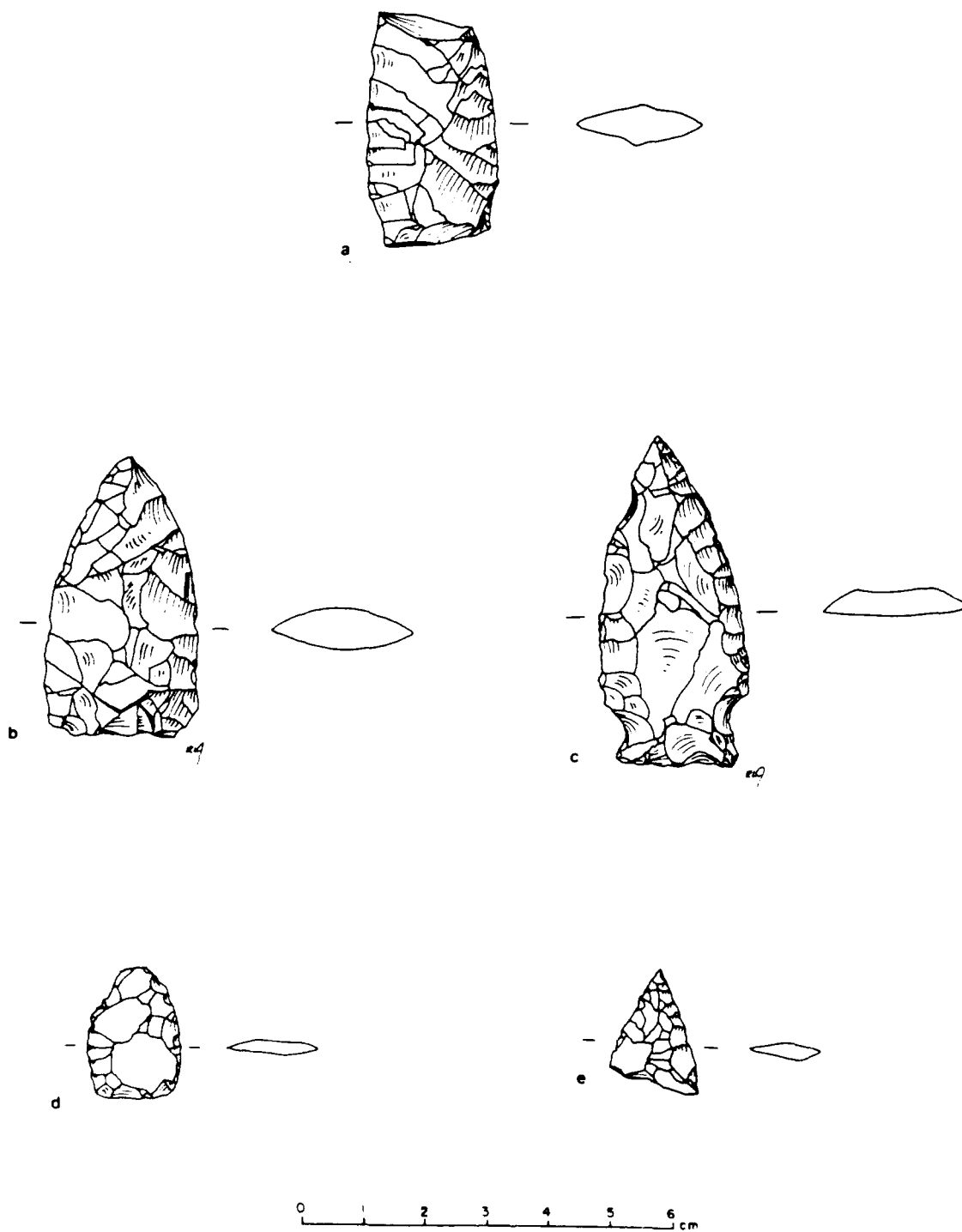


Figure 32. Projectile points recovered during the Dewey County survey.

a) 39DW148 [1]; b) 39DW147 [1]; c) 39DW150 [1];

d) 39DW133 [5]; e) 39DW149 [1].

Tables 13 and 14 following these descriptions provide morphological data. Figures 33 and 34 present the discriminate dimensions which are recorded in Tables 13 and 14. The discriminate dimensions are based on the earlier work of Ahler (1971) and are utilized here as a means of standardizing the data reported.

It is recognized that the assessment of cultural-chronological affiliations of projectile points, especially fragmentary specimens, is often tenuous and based to a large extent on the analyst's background. In this report comparative examples from the literature are referenced to substantiate the assessment presented, but undoubtedly as further work is undertaken in the area, some of these assessments will be changed. All of the projectile point forms are individually described, and illustrated at actual size.

Table 12. Sites and Cultural Affiliations Based on Projectile Point Types Recovered During the Current Survey.

<u>SITE [Find #]</u>	<u>CULTURAL/TECHNO COMPLEX</u>	<u>TEMPORAL LOCUS</u>
39DW133 [5]	Triangular, unnotched	Late Prehistoric
39DW147 [1]*	Besant side-notched?	Late Prehistoric
39DW148 [1]	Parallel oblique flaked	Late Paleoindian
39DW149 [1]	Triangular, unnotched	Late Prehistoric
39DW150 [1]	Besant corner-notched	Late Prehistoric

* Sites 147-150 are all isolated projectile point finds.

Cultural/Techno Complex: Late Paleoindian

1. Figure 32 (a)

Site 39DW148

Description: The specimen is a midsection and portion of the base of a lanceolate point. The point displays parallel oblique flaking and exhibits a constricted base. The distal and proximal ends have been removed through impact fracture. The specimen is produced on a very dark brown, heavily patinated chalcedony.

Munsell Color: 10YR 2/2

Measurements:	Length	<u>38.66</u> mm*
	Width	<u>21.76</u> mm
	Thickness	7.52 mm

Related Materials: Frison 1978:186 (Figure 5.23, e-g); Greiser 1986:30 (Figure 25, e-f).

* Underlining = Specimen incomplete along this dimension

Cultural/Techno Complex: Besant

2. Figure 32 (b)

Site: 39DW147

Description: The specimen is a side-notched or corner-notched point with the basal portion missing. The point is produced on fine-grained quartzite.

Munsell Color: 10YR 4/2

Measurements:	Length	<u>45.76</u> mm*
	Width	<u>25.24</u> mm
	Thickness	8.20 mm

3. Figure 32 (c)

Site: 39DW150

Description: The specimen is a corner-notched projectile point produced on agatized chalcedony. The corner notching and basal margins are slightly ground. The left lateral blade margin is slightly asymmetrical due to a deep bifacial flake having been removed.

Munsell Color: 7.5YR N7/

Measurements:	Length	53.48 mm
	Width	23.55 mm
	Thickness	6.34 mm

Related Materials: Reeves 1970:Appendix, Page 11 (Figure 11, Nos. 12-17); Mulloy 1954:446 (Figure 4, Upper Level Nos. 1 and 3).

* Underlining = Specimen incomplete along this dimension

Cultural/Techno Complex: Late Prehistoric

4. Figure 32 (d)

Site: 39DW133

Description: The specimen is a triangular unnotched projectile point with the proximal tip removed through an impact fracture. It is produced on fine-grained quartzite.

Munsell Color: 5YR 5/1

Measurements:	Length	<u>21.34</u> mm*
	Width	15.28 mm
	Thickness	3.22 mm

5. Figure 32 (e)

Site: 39DW149

Description: The specimen is a triangular unnotched projectile point with a small fragment of the basal edge removed. It is produced on quartz.

Munsell Color: 5YR 8/1

Measurements:	Length	<u>19.60</u> mm*
	Width	15.40 mm
	Thickness	3.44 mm

Related Materials: Ahler 1981: Type 01 points; Nowak 1981:77 (Figure 3, e-i, Type 2).

* Underlining = Specimen incomplete along this dimension

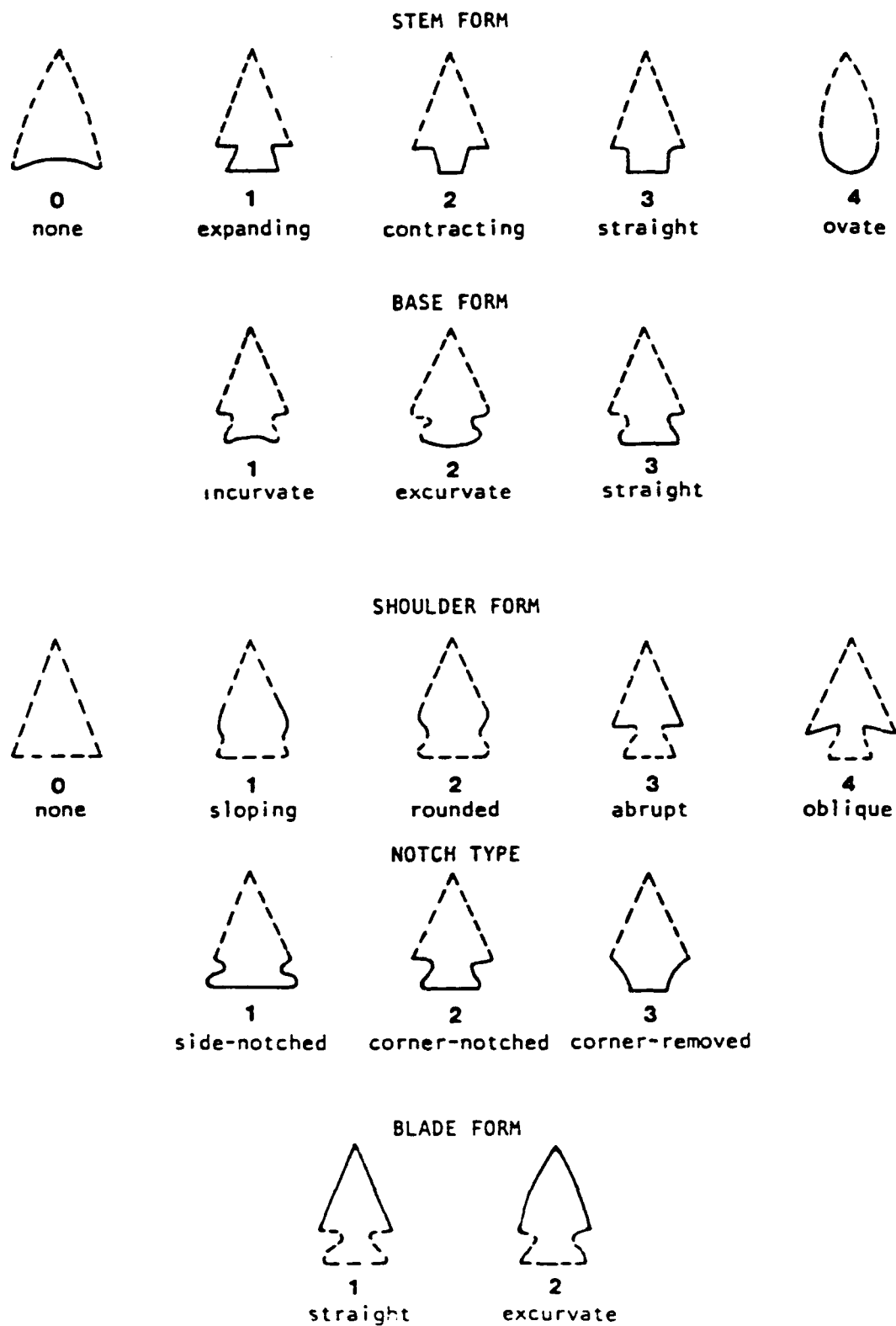
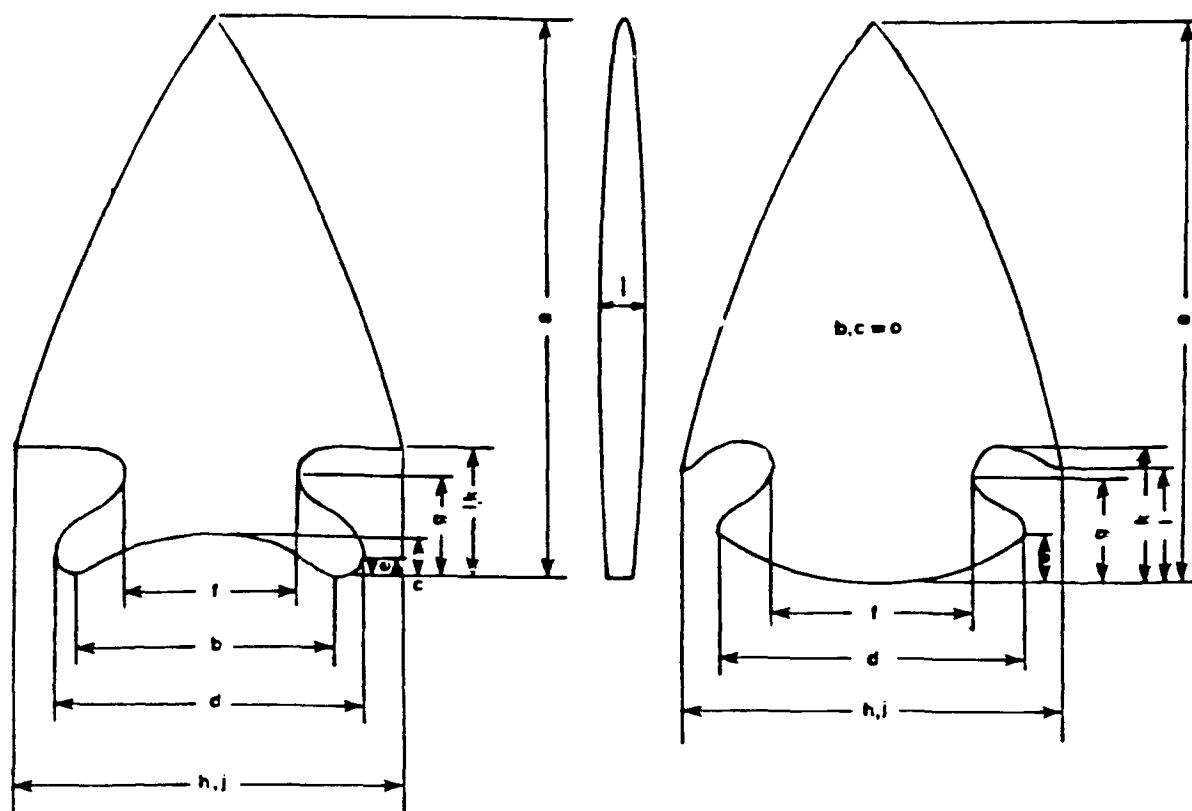


Figure 33. Graphic representation of the five nominal observations utilized in the projectile point analysis.



- | | |
|---------------------------------|-------------------------------|
| a. Total Length | g. Distal Haft Element Length |
| b. Basal Contact Width | h. Blade Base Width |
| c. Basal Center Point Length | i. Shoulder to Base Length |
| d. Proximal Haft Element Width | j. Maximum Width |
| e. Proximal Haft Element Length | k. Total Haft Element Length |
| f. Distal Haft Element Width | l. Maximum Thickness |

Figure 34. Diagram of two generalized projectile point forms indicating the measurements taken in the projectile point analysis (adapted from Ahler 1971:23).

Table 13. Summary of Material Type and Form Observations:
Projectile Points - Dewey County, South Dakota.

SPECIMEN	STEM FORM	BASE FORM	SHOULDER FORM	NOTCH TYPE	BLADE FORM	MATERIAL TYPE	MUNSELL COLOR
39DW133 [5]	0	3	0	NA	2	Fine-grained Quartzite	5YR 5/1 Gray
39DW147 [1]	INC	INC	2	1?	1	Fine-grained Quartzite	10YR 4/2 Dark grayish- brown
39DW148 [1]	3	INC	1	NA	1	Chalcedony	10YR 2/2 Very dark brown
39DW149 [1]	0	1	0	NA	1	Quartz translucent	5YR 8/1 White
39DW150 [1]	1	3	2	2	2	Agatized Chalcedony	7.5YR N7/ Light gray

INC = Incomplete
NA = Not Applicable

Table 14. Summary of Measurements and Cultural/Techno Complex:
Projectile Points - Dewey County, South Dakota.

SPECIMEN	MEASUREMENTS (mm)											CULTURAL/TECHNO COMPLEX	
	A	B	C	D	E	F	G	H	I	J	K		L
39DW133 [5]	<u>21.34</u>	NA	NA	12.95	NA	NA	NA	12.95	NA	15.28	NA	3.22	Late Prehistoric triangular unnotched
39DW147 [1]	<u>45.76</u>	INC	INC	INC	INC	16.62	INC	23.40	INC	25.24	INC	8.20	Besant?
39DW148 [1]	<u>38.66</u>	INC	INC	INC	INC	INC	INC	12.94	INC	21.76	INC	7.52	Late Paleoindian
39DW149 [1]	<u>19.60</u>	NA	NA	INC	NA	NA	NA	INC	NA	15.40	NA	3.44	Late Prehistoric triangular unnotched
39DW150 [1]	53.48	16.62	NA	19.52	NA	16.96	8.02	23.55	12.00	23.55	12.20	6.34	Besant

Underlining = Specimen is incomplete along this dimension.

NA = Not applicable

INC = Specimen was too incomplete along this dimension to measure.

Transverse Scrapers

Transverse scrapers, like projectile points, are a class of tools that are consistently patterned and bilaterally symmetrical, thus lending themselves to more detailed metric analysis and typology. Following a typology similar to that utilized by Lee and Lovick (1979) and Nowak (1981), the three transverse scrapers recovered from the sites identified during the survey were measured (Figure 35) and morphologically grouped according to overall shape, dorsal flaking treatment, distal margin shape, and treatment of the lateral margins. The raw material, Munsell color and measurements for each specimen are presented in Table 15. Only Type A and Type B scrapers are represented.

Type A (Figure 36 [a,b]). These scrapers are generally oval to slightly triangular in shape with a convex distal margin. They are commonly dome-shaped in cross-section with numerous dorsal flake scars occurring both perpendicular and oblique to the longitudinal axis. They are continuously unifacially retouched on all margins. Two Type A transverse scrapers, both produced on a dark reddish-brown chalcedony, were recovered from the Dewey County survey. These items were located at sites 39DW135 and 39DW215.

Type B (Figure 36 [c]). Scrapers in this category are triangular in shape with a straight to slightly convex distal margin. One lateral margin is formed by removing a single long flake from the dorsal surface along the longitudinal axis, leaving a ridge or arris. This technique always produces a triangular cross-section. The opposite lateral margin is beveled by removal of numerous dorsal flakes perpendicular to the arris. Secondary retouch occurs only on the lateral and distal margins; the proximal end normally retains a remnant striking platform. One Type B transverse scraper was recovered from the current survey at site 39DW135. The scraper was produced on a dark reddish-brown chalcedony.

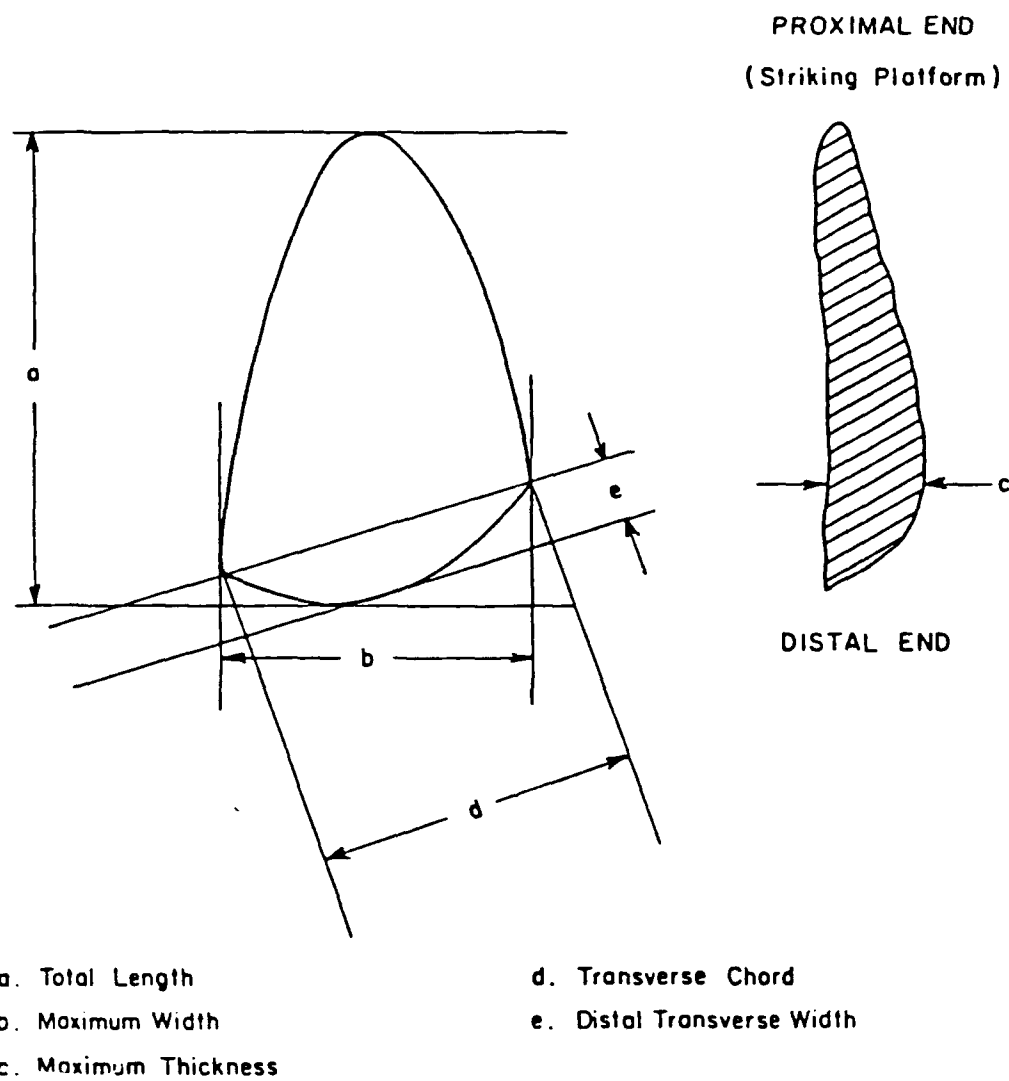


Figure 35. Diagram of a generalized transverse scraper indicating the five measurements taken (adapted from Lee and Lovick 1979).

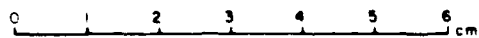
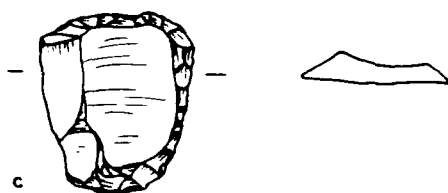


Figure 36. Transverse scrapers from the Dewey County survey.

Type A: (a) 39DW135 [5]; (b) 39DW215 [1].

Type B: (c) 39DW135 [2].

Table 15. Raw Material and Measurement Summary: Scrapers - Dewey County, South Dakota.

SCRAPER TYPES SITE/SPECIMEN	MUNSELL COLOR	RAW MATERIAL	A	B	C	D	E
Transverse Scrapers							
Type A (N = 2)							
39DW135 [5]	5YR 2.5/2	Dark reddish-brown chalcedony	29.10	17.74	5.92	14.74	7.32
39DW215 [1]	5YR 3/2	Dark reddish-brown chalcedony	14.52	15.52	5.36	13.52	6.34
Type B (N = 1)							
39DW135 [2]	5YR 3/2	Dark reddish-brown chalcedony	25.88	21.66	5.04	19.02	4.66

For explanation of measurement data refer to Figure 35.

Bifaces and Other Lithic Artifacts

In addition to projectile points and scrapers, several other chipped stone tool types were recorded during the Dewey County survey. The majority of these tools were unpatterned, bifacially or unifacially worked flakes, although some bifaces and examples of Badlands knives were also present. A summary of the items collected is presented in Table 16.

Ground stone items were rarely encountered at sites located in the survey area, but a granite cobble exhibiting heavy grinding on one surface was collected from site 39DW21. The grinding suggests that the specimen was utilized as a mano. Also, a possible grinding slab was recovered from site 39DW213. This piece is a tabular fragment of Bijou Hills quartzite with one surface ground smooth (Figure 37).

Table 16. Summary of Other Chipped Stone Tools Collected During the Dewey County Survey.

SITE/ITEM	LENGTH	WIDTH (millimeters)	THICKNESS	RAW MATERIAL	MUNSELL		DESCRIPTION
					COLOR		
39DW14 [5]	<u>49.65</u>	<u>35.80</u>	5.75	Plate Chalcedony	10YR 8/1		Badlands knife fragment with bifacial reduction on left lateral margin.
39DW133 [1]	<u>27.20</u>	33.60	7.60	Plate Chalcedony	10YR 8/1		Fragment of plate chalcedony with minor bifacial flaking on left lateral margin.
39DW133 [2]	<u>16.40</u>	<u>13.70</u>	2.90	Chert	5YR 6/1		Primary reduction flake with unifacial retouch on left lateral margin.
39DW133 [3]	29.80	22.48	6.90	Quartzite	7.5YR N5/		Biface fragment.
39DW135 [4]	27.90	21.30	5.80	Chert	7.5YR N3/		Biface fragment.
39DW134 [2]	<u>27.40</u>	<u>35.70</u>	8.60	Silicified Sediment	10YR 5/2		Biface fragment.
39DW135 [1]	<u>34.00</u>	<u>39.10</u>	8.28	Plate Chalcedony	10YR 8/1		Badlands knife fragment with bifacial flaking on right lateral margin.
39DW135 [3]	34.70	<u>20.00</u>	4.10	Chert	10YR 5/1		Tertiary flake with slight unifacial retouch on distal and lateral margins.
39DW135 [4]	<u>33.30</u>	29.30	7.95	Chert	10YR 5/1		Tertiary flake with slight unifacial retouch on distal margin.
39DW139 [1]	<u>99.70</u>	109.40	31.40	Tongue River Silica	10YR 7/1		Core, flake material removed bifacially.
39DW213 [1]	36.60	27.35	4.82	Tongue River Silica	10YR 7/1		Tertiary flake with fine unifacial flaking on left lateral margin.
39DW213 [2]	<u>32.43</u>	23.83	6.00	Tongue River Silica	10YR 7/1		Tertiary flake with fine unifacial retouch on portion of right lateral margin.
IF 1	<u>39.00</u>	23.80	6.20	Tongue River Silica	10YR 6/2		Biface fragment.

Underlining = specimen incomplete along this dimension

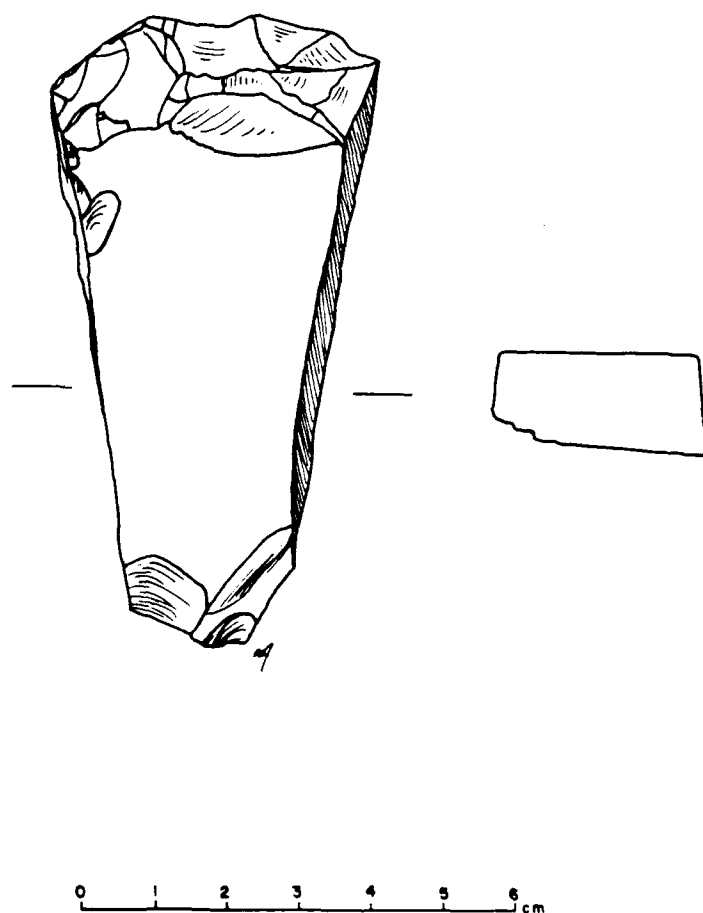


Figure 37. Grinding slab fragment from 39DW213 [14].

Prehistoric Ceramics by Joseph Tiffany

Prehistoric ceramics were recovered from three sites and one isolated find, IF #6, consisted of a simple stamped bodysherd. The collected sherds are described below and identified by type, when possible.

<u>Site/Find #</u>	<u>Description of Ceramic Material Collected</u>
39DW14 [2] Figure 38 (a)	Bodysherd - plain, polished exterior, exterior buff-colored with dark gray/brown firing cloud; on exterior is a diamond or square shaped design made of ca. 1 mm wide, narrow and shallow trailed lines. Grit-tempered, 5.48 mm thick.
39DW14 [3] Figure 38 (b)	Rimsherd, grit-tempered. It is straight and parallel-sided with a flat, slightly over-thickened lip. Decoration consists of diagonal tool impressions on the lip. The rim exterior is plain, but has been smoothed (marks parallel to the lip are present) resulting in what Caldwell (1966:38) termed "irregular horizontal wipe marks." The rim is an example of Talking Crow Straight Rim (Smith and Grange 1958; Lehmer and Jones 1968). The rim is 6.1 mm thick, and the lip is 6.0 mm thick.
39DW14 [6]	Rimsherd fragment, badly eroded. Grit-tempered. Smoothed-over exterior with a medium (ca. 3.5 mm wide), shallow trailed line. Maximum thickness 6.52 mm.
39DW14 [7]	Bodysherd, split with interior surface remaining. Grit-tempered. Maximum thickness 6.27 mm.
39DW14 [8]	This rim has a portion of the exterior surface missing. It is straight with a flat lip. Decoration consists of diagonal tool impressions on the lip. The exterior surface has been wiped smooth resulting in irregular, horizontal trailed striations. The rim is 7.00 mm thick; the sherd immediately below the rim is 6.4 mm thick. The

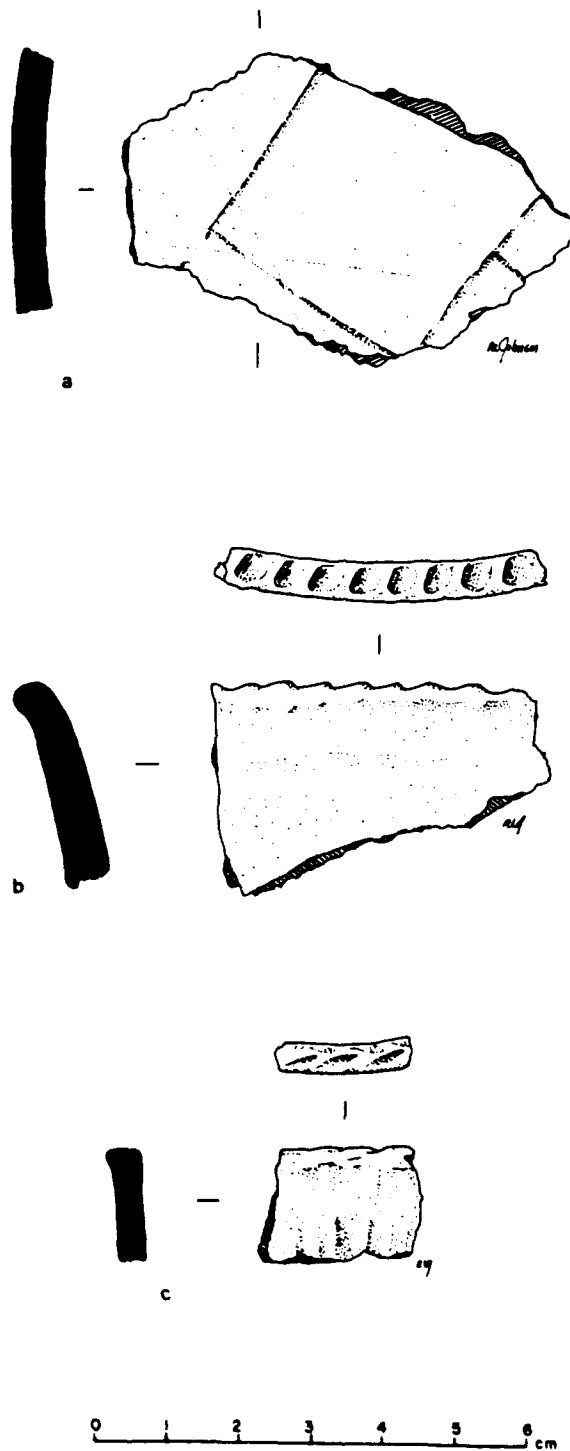


Figure 38. Selected examples of prehistoric ceramic rimsherds and a decorated bodysherd from the Dewey County survey:
 (a) 39DW14 [2]; (b) 39DW14 [3]; (c) 39DW213 [6].

specimen is an example of Talking Crow Brushed (Caldwell 1966:41).

39DW134 [1] Bodysherd, polished from burnishing surface, grit-tempered; smoothed-over simple stamped, 3.14 mm thick.

39DW213 [3-5] Three bodysherds, smoothed-over simple stamped, some polishing from burnishing the exterior surface, grit-tempered. Range from 4.48 to 5.64 mm thick.

39DW213 [6] Rimsherd, grit-tempered. This rim is straight and Figure 38 (c) parallel-sided with a slightly thickened (5.1 mm thick), flat lip. It is decorated with diagonal tool impressions on the lip. The exterior surface has vertical striations. The rim is an example of Talking Crow Brushed.

39DW213 [7] This is a vessel shoulder fragment, grit-tempered. It is 4.7-5.8 mm thick. The exterior is smoothed-over simple stamped. Decoration on the exterior consists of narrow (ca. 2 mm wide), deep trailed lines on the shoulder mid-point which form an "opposed diagonals" design - like what is found on Oneota pottery on the prairies (Coalescent pottery and Oneota pottery share some common shoulder design elements).

39DW213 [8] Bodysherd, grit-tempered. This sherd is very thin and appears to have a paste composition different from the other Extended Coalescent sherds. It is dark gray in color, thin (ca. 3 mm) and is decorated with two parallel, shallow trailed lines of medium width (ca. 2 mm).

- 39DW213 [10] Bodysherd, plain, dull exterior, grit-tempered. Maximum thickness 3.8 mm.
- 39DW213 [12] This is a rim/shoulder fragment (the upper portion of the rim is missing), grit-tempered. The thickness varies from 5.34-7.00 mm. The rim appears to be parallel-sided and straight; a portion of the rim exterior surface is missing. It is probably a portion of a Talking Crow ware vessel.
- 39DW213 [15-16] This rim/shoulder fragment represents two conjoined specimens. It is from a large vessel; it is thick (8.4 mm on the shoulder; 9.5 mm at the rim base) and poorly made when compared to the Extended Coalescent specimens. The paste is less compact and contains large, angular grit particles. The exterior surface is smooth and may be possibly brushed-over stamping (it is really hard to determine with this sherd). The interior and exterior rim/shoulder juncture forms a smooth curve and the rim appears to be flaring outward. The specimen fits Lehmer's (1966) description of Riggs ware, an Extended Middle Missouri pottery type.
- 39DW213 [17] Bodysherd. Smoothed-over simple stamped, with some polishing from burnishing the exterior surface. Maximum thickness 5.0 mm.

Bone and Shell Artifacts

The following bone and shell items were collected during the current survey:

- 39DW14 [4] - Bison scapula (hoe?). Glenoid articulation and portion of blade of scapula, 30 cm long.
- 39DW21 [1] - Bead, shell disc, perforated, 12.80 mm diameter, 1.74 mm thick.
- 39DW213 [11] - Bone awl (Figure 39 [a]), likely produced on splint of bison ribs, 140.26 mm long, 9.26-9.34 mm maximum thickness.
- 39DW213 [13] - Bison scapula hoe fragment, 30 cm long and 7 cm wide.

Historic Artifacts

No historic sites were recorded and only a single historic isolated find was collected. This item (IF #9) is a copper cartridge (Figure 39 [b]), internally primed center fire, utilized in altered Springfield breech loaders. The specimen dates between 1866 and 1868. Caliber 50; length 46.25 mm; base diameter 16.50 mm.

Site Artifact Assemblages and Lithic Utilization

Table 17 summarizes the artifacts observed during the Dewey County survey. The data are very limited since none of the sites displayed any large quantities of exposed material. In terms of lithic utilization, no exotic materials were found. Tongue River silica appears to be the most widely used raw material type. It occurred at 16 localities, while chalcedonies were found at 14 localities. The very small quantities, however, make statistical analyses inappropriate.

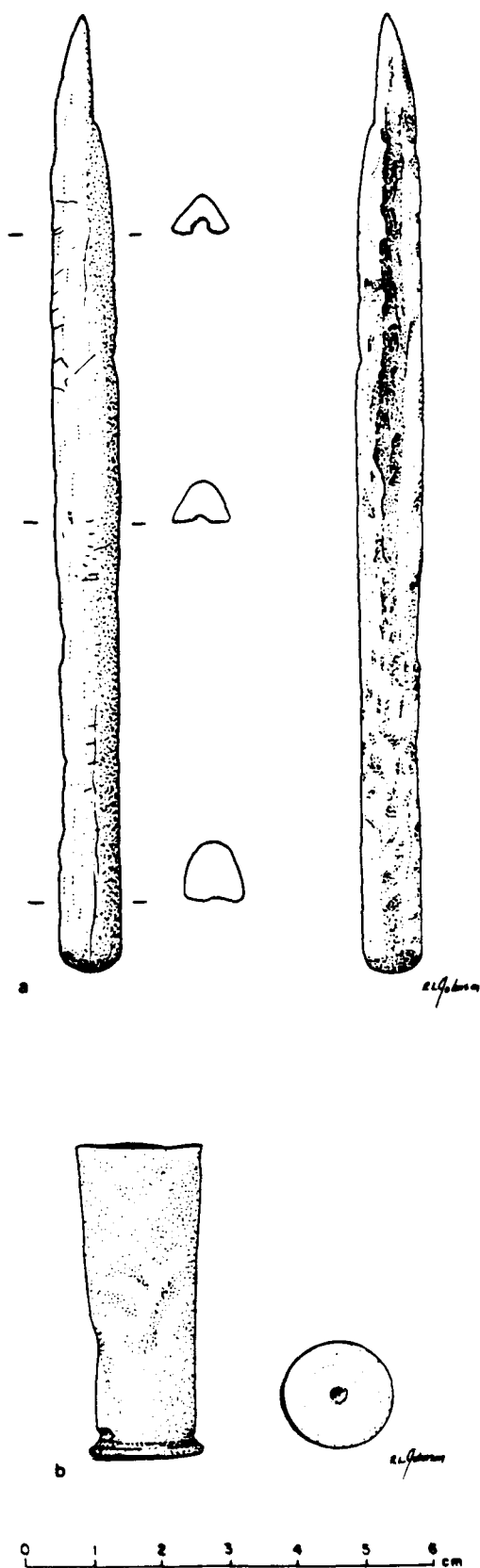


Figure 39. (a) Bone awl from 39DW213; (b) copper cartridge (IF #9).

Table 17. Summary of Cultural Materials, Including Lithics, by Material Type for the Dewey County Survey.

MATERIAL TYPE AND ITEM	SITE 39DW--																	ISOLATED FINDS												
	129	130	131	133	134	135	138	139	140	143	144	147	148	149	150	18	21	52	213	215	1	2	3	5	6	7	13	14	16	17
<u>Brown Chalcedony</u>																														
Primary Flake			2																											
Secondary Flake			1			1																								
Tertiary Flake			1														X													
Shatter			4														X													
Utilized Flake						2																								
Projectile Point													1																	
End Scraper						2																								
Flake Fragment						1																								
<u>Gray Chalcedony</u>																														
Primary Flake	1																													
Secondary Flake			1																											
<u>Gray-Brown Chalcedony</u>																														
Primary Flake			1																											
Secondary Flake			1																											
Shatter			1																											
<u>Red Chert/Chalcedony</u>																														
Shatter						1																								
Core			1																											
<u>White/Clear Chalcedony</u>																														
Tertiary Flake																														
Core			1																											
Projectile Point																														

ISOLATED FINDS

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Table 17. (cont.)

MATERIAL TYPE AND ITEM	SITE 39DW--																	ISOLATED FINDS												
	129	130	131	133	134	135	138	139	140	143	144	147	148	149	150	18	21	52	213	215	1	2	3	5	6	7	13	14	16	17
Brown Chert																														
Retouched Flake																														
Red and Brown Chert																														
Primary Flake																														
Gray Chert																														
Primary Flake																														
Tertiary Flake																														
Retouched Flake																														
Gray-Brown Chert																														
Primary Flake																														
Purple Chert																														
Primary Flake																														
Orange Chert																														
Tertiary Flake																														
White Chert																														
Retouched Flake																														
Brown Jasper																														
Utilized Flake																														
Red Jasper																														
(present)																														
Total Brown Chert																														
Total Red and Brown Chert																														
Total Gray Chert																														
Total Gray-Brown Chert																														
Total Purple Chert																														
Total Orange Chert																														
Total White Chert																														
Total Brown Jasper																														
Total Red Jasper																														
TOTAL CHERT/JASPER																														

Table 17. (cont.)

MATERIAL TYPE AND ITEM	SITE 39DW--																	ISOLATED FINDS														
	129	130	131	133	134	135	138	139	140	143	144	147	148	149	150	14	18	21	52	213	215	1	2	3	5	6	7	13	14	16	17	
<u>Brown Tongue River</u>																																
<u>Silica</u>																																
Primary Flake																															1	
<u>Gray Tongue River</u>																																
<u>Silica</u>																																
Primary Flake	1							2		2											1											
Secondary Flake								1		2																					1	
Tertiary Flake						1		9		3																						
Shatter								4		1																					1	
Core			1					1		1																						
Retouched Flake						1															2											
Biface								1																							1	
Flake Fragment	1							1		1																						
Red Silicified																																
<u>Sediment/TRS</u>																																
Primary Flake																																
Tertiary Flake																																
Shatter																																
Core																																
Biface																																
Flake Fragment																																
Utilized Flake																																
Fire-Cracked Rock																																
Gray Silicified																																
<u>Sediment</u>																																
Tertiary Flake																															X	
Utilized Flake																															1	

Table 17. (cont.)

MATERIAL TYPE AND ITEM	SITE 39DW--																	ISOLATED FINDS															
	129	130	131	133	134	135	138	139	140	143	144	147	148	149	150	14	18	21	52	213	215	1	2	3	5	6	7	13	14	16	17		
Mineralized Wood																																	
Primary Flake																																	
Secondary Flake																																	
Shatter																																	
Retouched Flake																																	
Total Brown Tongue River Silica																																	
Total Gray Tongue River Silica																																	
Total Red Silicified Sediment																																	
Total Gray Silicified Sediment																																	
TOTAL TONGUE RIVER SILICA/SILICIFIED SEDIMENT																																	
TOTAL MINERALIZED WOOD																																	

Table 17. (cont.)

MATERIAL TYPE AND ITEM	SITE 39DW--																ISOLATED FINDS														
	129	130	131	133	134	135	138	139	140	143	144	147	148	149	150	18	21	52	213	215	1	2	3	5	6	7	13	14	16	17	
<hr/>																															
Bijou Hills Quartzite																															
Grinding Stone																					1										
Gray Quartzite																															
Tertiary Flake																															
Biface				1				1																							
Flake Fragment																															
Fire-Cracked Rock				1				1																							
Purple Quartzite																															
Projectile Point				1																											
White Quartzite																															
Projectile Point																															
Grayish-Brown Quartzite																															
Projectile Point																															
<hr/>																															
Total Bijou Hills Quartzite				= 1																											
Total Gray Quartzite				= 4																											
Total Purple Quartzite				= 1																											
Total White Quartzite				= 1																											
Total Grayish-Brown Quartzite				= 1																											
TOTAL QUARTZITE				= 8																											

Table 17. (cont.)

MATERIAL TYPE AND ITEM	SITE 39DW--																	ISOLATED FINDS												
	129	130	131	133	134	135	138	139	140	143	144	147	148	149	150	18	21	52	213	215	1	2	3	5	6	7	13	14	16	17
<u>Granitic</u>																														
Tested Cobble																														
Core																														
Fire-Cracked Rock																														
Grinding Stone																														
Basaltic																														
Core																														
Hammerstone																														
Pierre Shale																														
Retouched Flake																														
Total Granitic																														
Total Basaltic																														
Total Pierre Shale																														
TOTAL GRANITIC/BASALTIC/SHALE																														

Table 17. (cont.)

MATERIAL TYPE AND ITEM	SITE 39DW--																ISOLATED FINDS														
	129	130	131	133	134	135	138	139	140	143	144	147	148	149	150	14	18	21	52	213	215	1	2	3	5	6	7	13	14	16	17
Pottery																															
Bodysherd																	X	X		8											1
Rimsherd																3				3											
Bone																															
Tool*																	1			2											
Unburned Bone																	X	X	X	7	12										
Burned Bone																		X													
Tooth Enamel																															
Shell																															
Bead																															
Valve																															
Total Sherds																															
Total Bone Fragments																															
Total Tooth Enamel Fragments																															
Total Shell																															

* Awl, hoe, etc.

Site Distribution in Relation to Landscape Units and Soil Types

Utilizing the geomorphological study produced by Dr. Everett White in a previous investigation by AL of portions of Stanley and Dewey counties (White 1987), as well as published soil maps and detailed field observations, an examination was made of the distribution of different site components and isolated finds in relation to the landscape units. White has defined the landscape units as follows (White 1987:13):

- Landscape Unit 1. Steep slopes with relatively unweathered Pierre Shale;
- Landscape Unit 2. Slump blocks and soil creep and flow deposits;
- Landscape Unit 3. Wave-cut cliffs, benches and beaches;
- Landscape Unit 4. Tributary stream terraces and floodplains created by local filling and cutting in response to meandering of the Missouri River; and
- Landscape Unit 5. Ridges of Pierre Shale and old terraces that may have surficial mantles of glacial drift, eolian sediment and water-deposited sediments including glacial outwash.

The current evaluation focuses particularly on correlations between site components and soil associations and landscape units.

Table 18 provides selected characteristics of the soils in the project area while Table 19 gives the type of soil present at each site locality (for all recorded sites and isolated finds). Sites and isolated finds enclosed in parentheses are located outside of the project area, but were included in this evaluation since they are located close to the project area.

The number of acres of each type of soil and the percent it comprises of the total mapped soils in the project area are presented in Table 20. The acreage for each of the soil types or soil series was determined directly from the most recent soil survey of Dewey County (Kalvels and Boden 1979). Also shown in Table 20 for each type of soil is the number of acres recorded as having dense gravel concentrations or a dense concentration of boulders. Soils along the edge of the reservoir, including a few large floodplains at the mouths of creeks, were not mapped by the soil survey, resulting in a total of 6,112 acres (see Table 20) rather than the actual 7,689 acres included in the survey area.

Table 21 shows the percentage of the project area located in Landscape Units 1-3, 4 and 5. Landscape Units 1, 2 and 3 are grouped together as they comprise the breaks area, whether on Pierre Shale or on glaciofluvial sediment.

The number of site components and isolated finds in each soil type is shown in Table 22. Soil units lacking associated sites or isolated finds are included in the table. Table 23 shows the number and percentage of each type of site and isolated find associated with each of the landscape units. Where more than one soil type is present at a site, the site is subdivided to reflect the amount of the site, as presently or previously recorded, located on each soil type. The types of soils included in each landscape unit are also listed in the table.

Table 18. Selected Characteristics of Soils in the Project Area.

SOIL TYPE	SLOPE	GRAVELLY SURFACE	SELECTED DESCRIPTION (Surface to lowest depth)
DsE	9-25		4" clay; 6" clay; 6" clay; 44" bedded shale
SbC	6-15		4" clay; 6" clay; 7" shaley clay; 33" bedded shale; glacial boulders common on surface
SbE	15-25		4" clay; 17" clay and shaley clay; bedded shale
SdC	3-15	Yes	5" gravelly sandy loam and gravelly loamy sand; clay
SfF	15-40	Yes	5" gravelly loam and gravelly loamy sand; clay
OsC	6-15		5" clay; 9" clay; 6" clay; 8" clay; 5" shaley clay; 27" shale
Pw	0-4		4" clay; 6" clay; 10" clay; 11" clay; 14" silty clay; 15" silty clay
Sw	0-2		1" clay; 8" clay; 51" clay
Sy	0-2		1" clay; 8" clay; clay
LwA	0-2		10" silt loam; 20" silt loam; 25" silt loam; gravelly loam
LwB	2-6		10" silt loam; 20" silt loam; 25" silt loam; gravelly loam
OhB	0-9		5" clay; 9" clay; 6" clay; 8" clay; 5" shaley clay; 27" shale

Table 19. Summary of Site Types and Isolated Finds by Soil Type.

SOIL TYPE	PREHISTORIC SITES		HISTORIC SITES		ISOLATED FINDS	
	STONE CIRCLE(S)	VILLAGE	ARTIFACT SCATTER	CAIRNS	ROCK PILES FOUNDATION/ GRAVEL TEST*	PREHISTORIC HISTORIC
DsE		39DW213 (40%)	39DW135		39DW135	1, 2, 4, 5, 15, 16, 9, 11, 20, 21, (22), 24
SbC		39DW14 (6%)	39DW138 39DW139 39DW140	39DW138 39DW140 39DW141 39DW146	39DW138	7, 13, 14, 17, 31
SbE	(39DW137)		39DW130 39DW131 39DW133 (5%) 39DW143 39DW144 39DW21 39DW52 39DW129	39DW129 (39DW136) (39DW137) 39DW142 39DW143 39DW144 39DW145	39DW21 39DW130 39DW143	3, 8, 12, 19
SdC		39DW213 (20%)				
SfF						
OsC						
Pw			39DW133 (95%)			
Sw			39DW134			

Table 19. (cont.)

SOIL TYPE	STONE CIRCLE(S)	PREHISTORIC SITES		HISTORIC SITES		ISOLATED FINDS	
		VILLAGE	ARTIFACT SCATTER	CAIRNS	ROCK PILES FOUNDATION/ GRAVEL TEST*	PREHISTORIC	HISTORIC
Sy							
LwA		39DW14 (94%) 39DW18					
LwB		39DW213 (40%)			(39DW132)	6, 10	
OhB							

() = Outside of the project boundaries.

* The absence of buildings on any old maps at sites 39DW132 and 39DW138, which contain problematical depressions, supports categorizing these sites as gravel tests (prospecting pits).

Note: Site 39DW215 is excluded from this table. It is situated on Agar silt loam (AgB, 2-6% slopes) outside the project area. This soil type is not mapped within the project area.

Table 20. Number and Percentage of Acres and Number of Acres Having Dense Gravel Concentrations and Dense Rock Concentrations for Each Soil Type in the Project Area.

SOIL TYPE/NAME	NO. OF ACRES	PERCENT	FIELD OBSERVATIONS	
			Dense Gravel Concentration (acres)	Dense Rock Concentration (acres)
DsE Dupree-Sansarc Clay	2,907.00	47.50	3.00	9.00
SbC Sansarc-Opal Clays	712.50	11.70	2.00	1.00
SbE Sansarc-Opal Clays	1,920.00	31.40	11.00	4.00
SdC Schamber Gravelly Sandy Loam	18.00	0.30		
SfF Schamber-Sansarc Complex	45.00	0.70	45.00	
OsC Opal-Sansarc Clays	10.00	0.20		
Pw Promise-Swanboy Clays	84.00*	1.40		
Sw Swanboy Clay	68.00	1.10		
Sy Swanboy-Slick- spots Complex	45.75	0.70		
LwA Lowry Silt Loam	166.00	2.70		
LwB Lowry Silt Loam	132.00	2.20		
OhB Opal-Hurley Complex	3.75	0.10		
TOTALS	6,112.00	100		

* Buffalo Creek only

Approx. shoreline miles = 71 miles (1377 acres with 160 ft. wide shore).
plus ca. 200 acres, other low bottoms
= 7,689 acres total = 12.01 sq. miles

Table 21. Summary of the Number of Acres in Landscape Units 1-3, 4 and 5, and the Percentage Each Comprises of the Project Area.

LANDSCAPE UNIT	NUMBER OF ACRES	PERCENT OF THE PROJECT AREA %
1-3	5,612.50	91.828
4	197.75	3.235
5	301.75	4.937
TOTALS	6,112.00	100

Table 22. Number of Site Types (Components) and Isolated Finds in the Project Area in Each Soil Type.

SOIL TYPE	LITHIC & ARTIFACT SCATTER	CAIRN	VILLAGE	SITE TYPE				HISTORIC ROCK PILES	ABORIGINAL ISOLATED FINDS	HISTORIC ISOLATED FINDS
				HISTORIC *FOUNDATION/ GRAVEL TEST?	STONE CIRCLE					
DsE	1.00		0.40				1.00	6.00	6.00	
SbC	3.00	5.00	0.06	1.00				4.00	1.00	
SbE	7.05	7.00		3.00	1.00			2.00	2.00	
SdC			0.20							
SfF										
OsC										
Pw	0.95									
Sw	1.00									
Sy										
LwA			1.94							
LwB			0.40	1.00				2.00		
OhB										
TOTALS	13.00	12.00	3.00	5.00	1.00		1.00	14.00	9.00	

* Formerly recorded, now absent Note: Site 39DW215 is excluded from this table. It is outside the project area and on a soil type not mapped within the project area.

Table 23. Number and Percentage of Site Types (Components) and Isolated Finds in Each Landscape Unit in the Dewey County Project Area.

Note: Landscape Units 1, 2 and 3 are grouped together as they comprise the breaks area, whether on Pierre Shale or glaciofluvial sediment. Soil types included in each landscape unit are as follows: Units 1-3: DsE, SbC, SbE, SdC, SfF, OsC; Unit 4: Pw, Sw, Sy; Unit 5: LwA, LwB, OhB.

LANDSCAPE UNIT	SITE TYPE						
	LITHIC & ARTIFACT SCATTER	CAIRN	VILLAGE	HISTORIC *FOUNDATION/ GRAVEL TEST?	STONE CIRCLE	HISTORIC ROCK PILES	ABORIGINAL ISOLATED FINDS
Units 1-3							
Number	11.05	12.00	0.66	4.00	1.00	1.00	12.00
Percent	(85)	(100)	(22)	(80)	(100)	(100)	(85.7)
Unit 4							
Number	1.95						
Percent	(15)						
Unit 5							
Number			2.34	1.00			2.00
Percent			(88)	(20)			(14.30)
TOTALS							
Number	13.00	12.00	3.00	5.00	1.00	1.00	14.00
Percent	(100)	(100)	(100)	(100)	(100)	(100)	(100)
* Formerly recorded, now absent							Note: Site 39DW215 is excluded from this table (Landscape Unit 5).

A comparison of the percentage of each site type or isolated find in each landscape unit, given in Table 23, with the percentage of the project area occupied by the soils in each landscape unit, presented in Table 20, provides a rough idea of the random, or nonrandom, distribution of each type of site or isolated find.

For each site type or isolated find, a random distribution would be represented by figures such as those presented in Table 21. All site types (components) and isolated finds located during this survey appear to have nonrandom distributions (i.e., are not distributed across soil/landscape units in the same proportions as those units occur in the study area).

The current survey area is comprised of landscape and soil associations similar to those found during the previous survey in portions of Stanley and Dewey counties (Winham and Lueck 1987). Therefore, this project was approached with expectations of similar site density and locational patterns. Based on the patterns noted previously in the Stanley/Dewey County project area, the following conditions were expected in the current survey area:

1. Earthlodge village sites would be associated with Landscape Unit 5.
2. Reservation and historic occupations would be found primarily in Landscape Units 1-3.
3. Aboriginal lithic scatters, isolated finds and stone cairns would be primarily associated with Landscape Units 1-3.
4. Few sites would be found in Landscape Unit 4.
5. A higher ratio, per portion of the project area, of aboriginal lithic scatters would be found in the gravelly Schamber-Sansarc complex and on Schamber gravelly sandy loam soils than any other soil type.
6. Aboriginal isolated finds would be randomly distributed among the soil types.

Evaluation of the data actually recovered during the 1988 survey is discussed below.

1. In concurrence with the Stanley/Dewey County survey and the predicted results for this survey, earthlodge village sites are primarily associated with Landscape Unit 5 (Lowry silt loam - LwA and LwB). The exceptions are ca. 0.6 of site 39DW213 and

ca. 0.06 of site 39DW14, which are situated on loess-capped ridges. These ridges are extensions of Landscape Unit 5. It should be noted that some loess deposits are not accurately mapped by the soil survey; their occurrence is under-represented on those maps (see Brakenridge's comments, p. 16).

2. Reservation and historic occupations were not found at all during the current survey, making it impossible to determine a relationship with Landscape Units 1-3. These site types were associated with Units 1-3 in the previous survey.
3. Prehistoric lithic and artifact scatters, isolated finds, and stone cairn sites are primarily associated with Landscape Units 1-3. The only exceptions are the 1.95 artifact scatter components found in Landscape Unit 4 and two prehistoric isolated finds recorded in Landscape Unit 5. Gravel prospecting pits, with one exception, and the sole recorded historic foundations (no longer present at 39DW21) are also associated with Landscape Units 1-3. These results agree with the expected pattern and generally follow the results of the previous Stanley/Dewey County survey.
4. As predicted, few components (1.95) were found in Landscape Unit 4. One of the two found in Unit 4 is associated with Holocene deposits along Buffalo Creek and as such may differ from the defined Landscape Unit 4 in the Stanley/Dewey County project. No sites were recorded in Landscape Unit 4 during the Stanley/Dewey County survey.
5. It appears that the low number of acres of "Schamber" soils (approximately 1 percent, 63 acres) prohibits a reliable comparison between this project and the earlier Stanley/Dewey County survey. The anticipated circumstance was as follows: a higher ratio, per portion of the project area, of aboriginal lithic scatters and/or isolated finds will be found in the gravelly Schamber-Sansarc complex and Schamber gravelly sandy loam soils than any other soil types (see Winham and Lueck 1987:237, 239).

6. Regarding the last expectation, aboriginal isolated finds were not randomly distributed among the soil types in this project area, as they were in the Stanley/Dewey County project areas; a higher percentage was recorded in Landscape Unit 5. However, this percentage is based on only two isolated finds and has limited predictive value; it is not statistically valid.

Other Research Topics

The potential to address the less broad-based topics listed above (pp. 59-60, topics 3-7) was viewed as more limited than the potential to address topics 1 and 2. With so few sites and artifacts, and fewer still with cultural/temporal designations, there is little data with which to evaluate lithic utilization in this region through time (see above and Table 17). The only sites with considerable representation in and near the project area are those associated with the Extended Coalescent (EC) and Post-Contact Coalescent (PCC) variants of the Plains Village period. The Extended Coalescent variant is represented by sites 39DW14, 39DW18, 39DW134 and 39DW213 in the project area and by many nearby inundated sites. Several of the now-inundated EC and PCC sites have been extensively excavated and reported, including the Payne site (39WW302) (Wilmeth 1958); the Swan Creek site (39WW7) (Hurt 1957); the Four Bear site (39DW2) (Hurt et al. 1962); and the Rosa site (39P03) (Hurt 1959). The potential to address problems related to the EC and PCC periods is discussed below under Historic Context Number 1.

The lack of recorded sites in the project area also prevents us from addressing problems related to other Plains Village periods. The only other variant of the Plains Village period with sites recorded nearby is the Extended Middle Missouri. All known EMM components are located about 4 or more miles north (39DW224/39DW225, 39DW231, 39DW256, and others) (Winham and Lueck 1987; Lehmer 1971:67) or northwest (39DW123) (Sanders 1988:100-103) of the project area. Others are downstream of the project area, beginning about 11 miles south. A single specimen (two conjoined rim/shoulder fragments) of Riggs ware, an Extended Middle Missouri pottery type, was recovered from 39DW213.

There is too little evidence to evaluate the Paleoindian, Archaic and Woodland periods in the immediate project vicinity, as they are not well-represented. A Late Paleoindian component is present at the

Walth Bay site (39WW203) (Ahler et al. 1974:905; Weston et al. 1979; Falk et al. 1986), located about .75 miles northeast of the project area. A Late Paleoindian projectile point fragment (an isolated find) was also found in the project area (site 39DW148) during the current survey. A Late Plains Archaic (Pelican Lake) projectile point was identified at site 39WW64 (Pepperl 1983) and a hearth, dated 3145 ± 160 B.P. was recorded at the Sewer Bay site (39WW41) (Falk et al. 1986). Both of the latter sites are located near Mobridge. Closer to the project area, Plains Archaic components are identified at the Walth Bay site (39WW203) (Ahler et al. 1974:905; Ahler 1975; Falk et al. 1986; Weston et al. 1979:33-36), located northeast of the project area, and at site 39DW122 (Sanders 1988), located about 2 miles northwest of the project area. The Middle Woodland Sonota complex is based in large part on burial mounds at four sites located about 8 miles north of the project area - Swift Bird (39DW233), Arpan (39DW252), Stelzer (39DW242) and Grover Hand (39DW240) (see Neuman 1975). A possible Woodland component may also be present at 39DW256, about 7 miles north of the project area, and at 39P030, across from the project area (Winham and Lueck 1983). A Plains Woodland component apparently was also associated with the Natchke site (39DW238), inundated near the south end of the project area.

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Historic use of the area is primarily represented by a number of inundated sites. The only exception is Swift Bird Cemetery or Calvary Episcopal Cemetery Nos. 1 and 2. This site is shown on early maps as being in the project area, but was not relocated. The burials from this site were reinterred by the Corps and no evidence remains of the original cemetery. Native American sites formerly on the Cheyenne River Indian Reservation include several church and/or cemetery sites (St. Stephens Mission and cemetery, and Calvary Church) and the Moreau Community Center. Ascension Church is located near the north end of the project area (see Mattison 1954). Medicine Rock site (39P0203) is about 2 miles east of the project area. Reservation period family occupations in and near the project area also seem likely, although no sites of this type were located during the current survey. Euro-American presence is known from the nearby inundated sites of Old Le Beau, New Le Beau

(39WW17), Scranton Post Office, Whitlocks Crossing, original Forest City, and Forest City (see Mattison 1954). Several campsites from the Lewis and Clark expedition of 1804-1806 are also inundated near the project area (Mattison 1954).

Related Historic Contexts (Wood and Erpestad 1985) which might have been represented in the project area were listed in the proposal (Appendix H:16-17) and are discussed below:

1) Architectural remains of earthlodge village groups (Unit No. I - Topic: Pre-Sioux Habitation - Study Unit: Single Unit) - Extended Coalescent and Post-Contact Coalescent Variants in particular.

Although the loess-capped landscape areas likely have a good potential for buried, earlier components, the EC (and possibly PCC) period has the only known representations in the project area. This period is associated with sites 39DW14 and 39DW18, and probably with 39DW213. Buried, intact features or zones apparently exist at each of these sites, and obvious features are present on the surface at 39DW14, and likely at the other two sites as well.

A range of cultural and seasonal subsistence patterns could potentially be addressed at these sites, as well as a host of intersite and site-specific problems. Although these site types are not as rare as sites from most of the other cultural/temporal periods represented along the river, their significance is elevated by their occurrence in a period of rapid, if not turbulent, change.

No evidence of the other obviously related Historic Contexts (Wood and Erpestad 1985), listed below, was recovered. Thus, these topics cannot be productively addressed.

2) Dakota/Lakota Indian occupation remains (Unit No. II - Topic: Sioux Era - Study Unit A, Indigenous Sites and Structures 1750 to Present; and B, Government-Constructed Sites and Structures, 1851 to Present).

3) Remains of log cabins, dugouts, soddies and claim or allotment shelters, small frame farm houses, and early farm buildings (Unit No. IV - Topic: Permanent Rural and Urban Pioneer Settlement - Study Unit A, Claim Structures 1858 to 1893; also Unit V - Topic: Depression and Rebuilding 1893-1929 - Study Unit E, Changing Rural Patterns and Impact of New Farm Technologies).

4) Indian schools (Unit No. II - Topic: Sioux Era - Study Unit: Government-Constructed Sites and Structures 1851 to Present).

5) Mission buildings (Unit No. II - Topic: Sioux Era - Study Unit: Christian Missions 1750 to Present).

Research problems associated with the Historic Contexts noted above (see Wood and Erpestad 1985) that appeared to have some potential to be addressed included:

- 1) patterns of resettlement for the Sioux after 1876;
- 2) how government constructed sites and structures fit into the larger framework of nineteenth and twentieth century government-Indian history;
- 3) what elements of permanent pioneer settlement/claim structures fit a broad history of American settlement, and the role of the claim structures in the history of the site;
- 4) what differences, if any, exist between "ranches" and "farms"; and
- 5) how agricultural activity affected farm design(s).

The absence of sites/data relating to the Historic period precludes addressing these topics. The lack of historic sites in the survey area does not indicate a lack of historic utilization, as the historically documented sites (above and Tables 2-5) demonstrate. Very limited direct evidence of historic utilization was recovered in the form of some isolated finds and oral history accounts of "prospecting for gravel" in the early twentieth century. Some of the sites recorded, such as cairns and depressions, might have their origin in the historic period. However, only the recovery of diagnostic materials upon excavation would allow a temporal placement to be made.

Clearly, the area surveyed gives a biased sample of the region as a whole, and while the lack of historic sites suggests the density of occupation and degree of utilization of the area in the historic period was not great, historic sites are known and to be expected in the general vicinity of the survey area.

This section briefly summarizes the major site types located on Corps land during the Dewey County survey.

Earthlodge Villages

Three earthlodge village sites were recorded on Corps land during this survey: 39DW14, 39DW18 and 39DW213. Descriptions of these sites are provided in the preceding site inventory section. The site areas are outlined on Plate 27, a reproduction of an aerial photograph taken prior to the creation of Lake Oahe.

Site 39DW14 is the best preserved of these villages with at least 40 depressions visible. The nature of some of the depressions, however, is unclear; they vary in size and depth, and the northern portion of the site needs better definition. Limited surface inspection and collection were conducted previously at this site by SIRBS field crews, although no map was prepared.

Site 39DW18 was recorded in 1949 as having "house rings present in numbers, distinct, but not very deep" (Fraser 1949: SIRBS site form). These rings are not visible today, with only one depression being noted during the field investigation. However, there is a widespread, although relatively sparse, artifact scatter and portions of the potential site area have been impacted by gravel quarrying. This site also needs a program of testing to clarify its content.

Site 39DW213, like 39DW18, was previously recorded in 1952 as having "about 100 lodge rings" (SIRBS site form, August 11, 1952), but today the rings are not apparent within the area surveyed (hence the difference in the boundaries of the site shown on Plate 27 and the current site form). A single deep depression and a scatter of cultural material, primarily associated with large slump blocks, were recorded. Material density appears to be sparse.

All three earthlodge village sites contained pottery that is consistent with Extended Coalescent ceramics (see Tiffany, this report) and the sites typically have a low density of refuse. It should be noted, however, that a single specimen (two conjoined rim/shoulder fragments) of Riggs ware, an Extended Middle Missouri pottery type, was also collected from site 39DW213. All three sites are undergoing



Plate 27. Aerial photograph of site areas 39DW14, 39DW18 and 39DW213, taken in 1950 (pre-reservoir).

substantial cutbank erosion. The management recommendations for these sites call for a full evaluation of their content and research potential. They are all considered potentially eligible for nomination to the National Register of Historic Places under the criteria of containing information important in prehistory. Information from areas under immediate threat from erosion should be salvaged.

Prehistoric Artifact Scatters

The term "artifact scatter" can be applied as a generic designation for the characterization of surface materials (discards) resulting from human utilization at a particular locality. The manifestation of surface materials in the archeological context reflects a complexity of relationships between natural and non-natural (cultural) factors - beginning with the depositional circumstance, extending through burial, decomposition and, possibly, re-exposure. Geomorphological and climatic processes, along with other more subtle factors, affect the course of preservation. The specific physiographic and environmental parameters affecting the present study area limit the long-term preservation of organic material, frequently presenting an assemblage of lithic materials as the surviving evidence of past human activity.

As a general measure, the interpretation of surficially exposed materials can be further complicated by agricultural disturbance, construction activities and vandalism affecting the archeological localities. The long term and unremitting removal of materials by collectors continues to present the field archeologist with samples lacking in reliability.

The more complex a site is, the greater permanence and/or importance it probably had to the society. Complexity can be measured in terms of the number and types of formed tools at a site - illustrating different activities; the stages of tool making represented; the variety of lithic raw materials utilized; the range of associated non-lithic material; the presence of hearths or indications of the use of fire; and other features such as depressions and rock alignments.

A summary of cultural materials recorded during the Dewey County survey has been presented in Table 17 and discussed (pp. 159-188).

Management Priorities for Artifact Scatters (see Table 10: Type 1)

Six artifact scatters were identified on Corps land during this survey. Two of these sites, 39DW21 and 39DW52, have been totally outwashed by reservoir action and are not considered to have any significant research potential. Three of the sites, 39DW130, 39DW131 and 39DW133, are surface scatters located on shallow soils above Pierre Shale with no potential for subsurface layers. The limited artifactual assemblages recorded at these sites, where surface visibility was good, indicate very limited research potential. This potential is not considered sufficient to make the sites potentially eligible for nomination to the National Register of Historic Places.

Finally, site 39DW134 is an artifact scatter containing both lithic and ceramic materials in three apparent concentrations. The single ceramic sherd is consistent with Extended Coalescent ceramics. Although largely surficial, the site offers some potential for discerning activity areas. Such potential should be investigated to determine the site's eligibility for nomination to the National Register.

Cairns

The terms "cairn," "rock cairn" or "rock pile" may cover a wide range of features in terms of size, shape and function. A strict definition of a "cairn" should emphasize the piled-up nature of rocks or cobbles when compared with features such as hearths or mosaics which are generally spread out or single-coursed stone features. However, when conducting a surface survey it is not always possible to clearly discern whether a feature is partially buried or whether a stone pile has been spread out at some time after its original construction.

Seven of the stone cairn sites recorded during the Dewey County survey were isolated features or associated with a single isolated lithic artifact. Three of the cairns were associated with artifact scatters and one with depressions. The cairns varied in size and number of stones, but were all basically circular in shape. In regard to the function of cairns, it has been noted:

Cairns are not an archeological phenomenon unique to the Plains; they have been observed in a wide range of locations in North America. Their function has long been a puzzle to researchers, and ethnographic, historic, and archeological literature

indicates that rock piles have served a wide range of purposes. Malouf (1962) and Lahern et al. (1978) provide good summaries of the myriad functions of rock piles. Briefly, cairns have been recorded or postulated as being or marking any of the following:

- food caches
- ceremonial/religious activities
- burials
- memorials for the dead
- memorials for battles
- shrines
- trail markers
- bison drive alignments
- lookout or vision quest site markers
- finishing lines for horse races
- children's play
- support for a tipi or flag pole
- support for scaffolding of a burial or
- meat-drying rack
- support for spears or other weapons
- trash piles

...Some may have been built to support a bison skull in anticipation of a successful kill.

Obviously, cairns may have served in an unlimited number of ways, which poses a problem for the archeologist [Hanchette 1983:6.11-6.12].

Table 24 summarizes the information recorded for the 11 sites at which one or more cairns were present on Corps land.

Management Considerations for Cairns

The research potential of rock cairns is clearly limited unless they are associated with a larger site. Because some lithic material was present at sites 39DW135, 39DW139 and 39DW144 these localities may merit more attention. The depressions associated with site 39DW138 are probably gravel prospecting pits. Cairns are assigned a low management priority. Nevertheless, if these sites are threatened, further evaluation should be undertaken.

In this area, it is likely that these cairns are trail or lookout markers, but it is possible that some either cover or mark a feature. Although material indicating temporality could be encountered among or beneath the stones, the potential is considered low.

...the majority of cairn functions...cannot be detected...since no tangent cultural remains are associated with them. While rock piles have been excavated, the results have varied and, more often than not, evidence as to their function, or raison d'etre, has been inconclusive [Hanchette 1983:6.12].

Table 24. Summary of Cairns Located on Corps Land During the Dewey County Survey.

SITE NUMBER	CAIRN DIMENSIONS (cm)			OTHER INFORMATION
	N-S	x	E-W	
39DW129	130		110	23 stones (double fist to half head-sized, angular granitic rock)
39DW140	120		100	21 stones (double fist to half head-sized granite cobbles), gray TRS shatter nearby
39DW141	160		160	30 stones
39DW142	100		90	13 stones (double fist to half head-sized granitic rocks)
39DW143	75		100	11 stones, TRS shatter nearby
39DW145	90		80	7 stones
39DW146	90		120	11 stones
39DW138	50 (diameter)			11 stones
	120		110	24 stones, open in center
	160		160	29 stones, open in center
	110		120	17 stones, open in center
	90		100	13 stones
	120 (diameter)			43 stones
				Associated with two depressions and one flake
39DW135	100		100	Large (head-sized) stones. May be recent/historic. Artifact scatter.
39DW139	120		100	15 stones, artifact scatter
39DW144	270		210	9 head-sized rocks, artifact scatter

National Register Eligibility

All three earthlodge village sites and one artifact scatter containing ceramics are considered potentially eligible for nomination to the National Register of Historic Places. This judgment is based on their potential to provide information important in prehistory - specifically in regard to the Extended Coalescent variant. Topics such as variation in site and dwelling size, site location, subsistence, and the intensity and duration of occupation(s) could be addressed.

Of these sites, 39DW14 clearly is the best preserved. To fully document the research potential at this site a program of deep-testing is recommended on the loess-capped terrace. Also, the nature of a number of the features (depressions) at the site should be further defined, particularly in the northern part of the site.

In the case of village sites 39DW18 and 39DW213, a more basic evaluation of the integrity and extent of each site is required, as the site components observed during this survey do not match the SIRBS records. Also, the site areas in both cases lack concise delineation. Site 39DW213 probably extends outside Corps property. The occurrence of both Extended Coalescent and Extended Middle Missouri ceramics at site 39DW213 suggests at least the possible presence of two components.

Site 39DW134 may represent an Extended Coalescent campsite, but its integrity needs further definition prior to determining its research potential. The cairns are also listed as potentially eligible for nomination to the National Register of Historic Places, unless further evaluation establishes Historic construction. In and of themselves they offer minimal research potential. However, examples should be preserved of this once ubiquitous site type.

Management Recommendations

In evaluating the sites identified during the Dewey County survey both the type category and individual localities within the category were examined. For each site the following information is tabulated in Table 25 and summarized in Table 26.

Site condition is shown as (1) extant (largely undisturbed); or (2) disturbed (by erosion, agriculture). Site impacts are listed as (1)

severe; (2) moderate; (3) slight; or (4) undisturbed. Site condition and site impacts provide a summary of the integrity and current threats to the site. The impacts refer to those affecting the site area at this time - not to impacts the site may have been affected by in the past.

Site status with regard to National Register eligibility is noted as either (1) not eligible or (2) potentially eligible. Priority is ranked high (1), medium (2) or low (3). Site status and priority represent our evaluation of the site from a management standpoint.

High priority sites include those sites potentially eligible for nomination to the National Register of Historic Places which are being impacted at this time. Sites which are not threatened by immediate or foreseeable impacts are given a low priority.

The sites in the Priority 1 category include the three earthlodge village sites on Corps land (39DW14, 39DW18 and 39DW213) and site 39DW139. The latter site possibly contains deeply buried cultural materials and is currently undergoing severe erosion.

Three sites (39DW134, 39DW135, and 39DE138) are placed in the Priority 2 category as having additional potential information but currently being only slightly impacted or not impacted. Of these sites, 39DW134 has the most research interest. It is evaluated as a temporary campsite associated with Plains Village groups. This tentative cultural affiliation is predicated on a recovered ceramic sherd.

The remaining sites, the majority of which are cairns, are all assigned a low priority. Few of the small artifact scatters and cairns are likely to be nominated to the National Register of Historic Places, but these sites clearly reflect a common and extended period of utilization of the area and examples should be protected, perhaps as part of an archeological region or thematic nomination. For example, if a series of the cairns were identified as trail markers, then they might be nominated as a group. It is for this 'thematic' reason that most of these sites have been classified as potentially eligible, rather than on the basis of the perceived research potential at each individual site.

With reference to the geomorphological evaluation of the area, a number of locations have the potential for buried cultural materials relating to the pre-Plains Village/Late Prehistoric periods (see Figures 2, 5, 6 and 7). Erosion of cutbanks in these areas should be closely monitored in order to identify and evaluate such sites, if they exist.

Table 25. List of Site Condition, Impacts, CRM Status and Priority Status Assigned to Sites Recorded on Corps Land During the Dewey County Survey.
(Presented in site number order by priority status.)

SITE NUMBER	CONDITION		IMPACTS				CRM STATUS		PRIORITY STATUS		
	1	2	1	2	3	4	1	2	1	2	3
39DW14		X	X					X		X	
39DW18		X	X					X		X	
39DW139		X	X					X		X	
39DW213		X	X					X		X	
39DW134	X				X			X			X
39DW135	X				X			X			X
39DW138	X					X		X			X
39DW21		X	X					X			X
39DW52		X	X					X			X
39DW129	X					X		X			X
39DW130		X		X				X			X
39DW131	X				X			X			X
39DW133	X				X			X			X
39DW140	X					X		X			X
39DW141	X					X		X			X
39DW142	X					X		X			X
39DW143		X		X				X			X
39DW144		X			X			X			X
39DW145	X					X		X			X
39DW146	X					X		X			X

Table 26. Summary of Management Considerations for Sites Located on Corps Land during the Dewey County Survey.

	ALL SITES	SITE TYPES (see table 8)				
		AS	EV	C	C/D	C/AS*
<u>CONDITION</u>						
1	11	8	-	1	1	1
2	9	3	3	1	-	2
<u>IMPACTS</u>						
1	6	2	3	-	-	1
2	2	1	-	1	-	-
3	5	3	-	-	-	2
4	7	3	-	3	1	-
<u>CRM STATUS</u>						
1	6	5	-	-	-	1
2	14	1	3	7	1	2
<u>PRIORITY</u>						
1	4	-	3	-	-	1
2	3	1	-	-	1	1
3	13	5	-	7	-	1

* AS = Small prehistoric artifact scatters (less than 10,000 m²)

EV = Earthlodge villages

C = Cairns

C/D = Cairn and depression localities

C/AS = Cairn associated with artifact scatter

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alluvia	Referring to material such as loose gravel, sand, and mud deposited by streams.
alluvial fan	The outspread sloping deposit of boulders, gravel and sand left by a stream where it leaves a gorge to enter upon a plain or an open valley bottom.
amsl	Above mean sea level.
bluff	(a) A high bank or bold headland, with a broad, precipitous, sometimes rounded cliff face overlooking a plain or body of water, especially on the outside of a stream meander; (b) any cliff with a steep, broad face.
bs	Below surface.
clast	An individual constituent of detrital sediment or sedimentary rock produced by the physical disintegration of a larger mass.
component	A specific local manifestation of a <u>phase</u> .
eolian	Of, relating to, formed by or deposited from the wind. (Such as sands and other loose materials along shores which are arranged by the wind.)
erosion	The wearing away of the land surface by running water, waves, or moving ice and wind, or by such processes as mass wasting and corrosion (solution and other chemical weathering).
field survey	Intensive pedestrian survey utilizing spacing intervals averaging 30 meters apart, varying with terrain and surface visibility.
flat	A general term for a level or nearly level surface or small area of land marked by little or no relief.
floodplain	The nearly level alluvial plain that borders a stream and is subject to inundation under flood-stage conditions unless protected artificially. It is usually a constructional landform built of sediment deposited during overflow and lateral migration of the stream.
fluvial	Of, or pertaining to, streams and rivers; produced by stream or river action.
geomorphology	The science that treats the general configuration of the earth's surface; specifically the study of the classification, description, nature, origin, and development of landforms and their relationship to underlying structures, and of the history of geologic changes as recorded by these surface features.

illuviation	Deposition in an underlying layer of soil (usually the B horizon) of minerals or organic matter which have been leached out of an overlying soil layer. The action occurs in humid climates.
inceptisols	Soils that are usually moist with pedogenic horizons of alteration of parent materials but not of illuviation. Generally the direction of soil development is not yet evident from the marks left by the various soil-forming processes or the marks are too weak to classify in another soil order. Relatively low in organic matter.
isolated find	Four or less artifacts in isolation, or a very sparse, widespread scatter with a density of no more than one item every 2500 square meters. Also: 1) an item or feature of doubtful cultural origin; and 2) abandoned recent artifacts, such as farm equipment, in the absence of related activities.
mollisol	Soils with nearly black, organic-rich horizons and high supply of bases. These are soils that have decomposition and accumulation of relatively large amounts of organic matter in the presence of calcium. Approximately equivalent to soils of the grassland.
phase	This term has various connotations in the literature, but essentially refers to an artifact sequence, often spatially restricted and occupying a short time period, around which a social and cultural activity sequence of prehistoric peoples can be developed and studied. Phases have specific local manifestations which are called <u>components</u> , and can be grouped together into what is termed a horizon, representing a broad pattern of cultural activity (Smith 1976:81-82).
potential natural vegetation	The vegetation that would exist today if man was removed from the scene and if the resulting plant succession was telescoped into a single moment.
shovel testing	Tests accomplished during the survey with a shovel to inspect the immediate subsurface conditions in areas of poor visibility. Generally the test approximates a unit 45 cm x 45 cm and 45 cm deep.
SIRBS	Smithsonian Institution River Basin Surveys.
slump(ing)	The downward slipping of a mass of rock or unconsolidated material of any size, moving as a unit or as several subsidiary units, usually with backward rotation on a more or less horizontal axis parallel to the cliff or slope from which it descends.

terrace

A step-like surface, bordering a valley floor or shoreline, that represents the former position of an alluvial plain, or lake or sea shore. The term is usually applied to both the relatively flat summit surface, cut or built by stream or wave action, and steeper descending slope, graded to a lower base level of erosion.